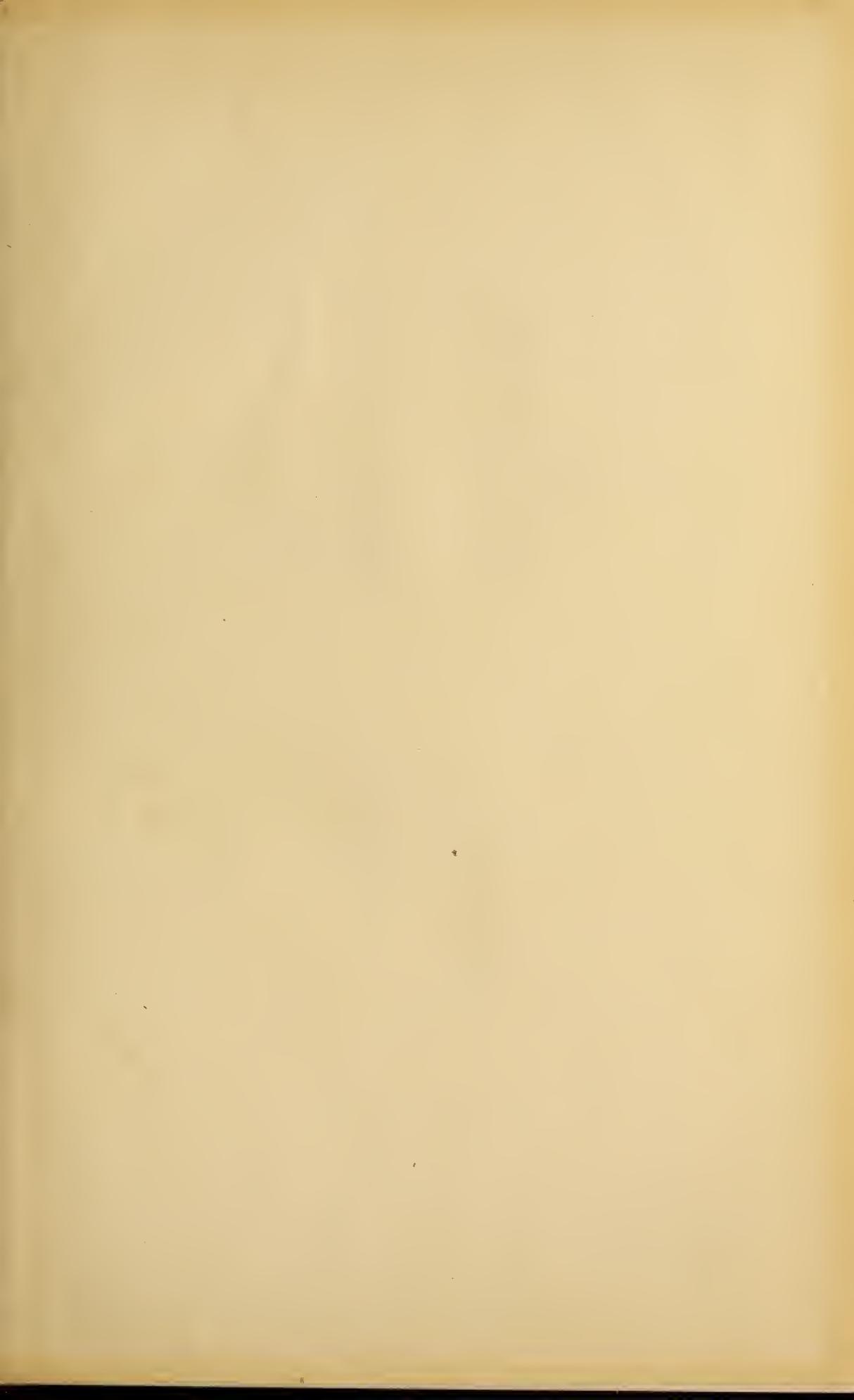




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**PHOEBE APPERSON HEARST
MEMORIAL VOLUME**

**UNIVERSITY OF CALIFORNIA PUBLICATIONS IN
AMERICAN ARCHAEOLOGY AND ETHNOLOGY
VOLUME XX**

**UNIVERSITY OF CALIFORNIA PRESS
BERKELEY, CALIFORNIA
1923**

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VOLUME XX

EDITOR

A. L. KROEBER

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Monograph



PHOEBE APPERSON HEARST
MEMORIAL VOLUME

ON THE TWENTIETH ANNIVERSARY OF THE ORGANIZATION
OF THE DEPARTMENT AND MUSEUM OF ANTHROPOLOGY OF
THE UNIVERSITY OF CALIFORNIA, SEPTEMBER 10, 1901



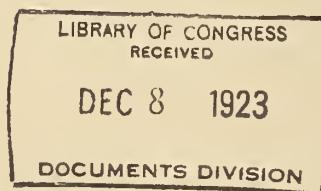
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Volume 20, xvi + 389 pages, 2 plates, 22 figures in text

Issued December 1, 1923



IN MEMORY OF THE FOUNDER
PHOEBE APPERSON HEARST



CONTENTS

	PAGE
HISTORICAL INTRODUCTION.....	ix
CONTRIBUTORS TO THIS VOLUME.....	xv
1. FRANZ BOAS..... Notes on the Tillamook.....	3
2. JUAN DOLORES..... Papago Nominal Stems.....	19
3. PAUL-Louis FAYE..... Notes on the Southern Maidu.....	35
4. L. S. FREELAND..... Pomo Doctors and Poisoners.....	57
5. EDWARD WINSLOW GIFFORD..... Pomo Lands on Clear Lake.....	77
6. PLINY EARLE GODDARD..... Habitat of the Wailaki.....	95
7. PHILIP MILLS JONES..... Mound Excavations near Stockton	113
8. A. L. KROEBER..... The History of Native Culture in California.....	125
9. ROBERT H. LOWIE..... Cultural Connection of Californian and Plateau Shoshonean Tribes.....	145
10. W. C. McKERN..... Patwin Houses.....	159
11. W. L. MARSDEN..... Northern Paiute Language of Oregon.....	175
12. JOHN ALDEN MASON..... Preliminary Sketch of the Yaqui Language.....	195
13. RUTH EARL MERRILL..... Plants Used in Basketry by the California Indians.....	215
14. GILBERT NATCHES..... Northern Paiute Verbs.....	245
15. EDWARD SAPIR..... Text Analyses of Three Yana Dialects....	263
16. LESLIE SPIER..... Southern Diegueño Customs.....	297
17. E. G. STRICKLEN..... Notes on Eight Papago Songs.....	361
18. T. T. WATERMAN..... Yurok Affixes.....	369



HISTORICAL INTRODUCTION

Nearly thirty years ago, Mrs. Phoebe Apperson Hearst conceived the idea of adding further to the valuable objects of art and antiquity which she already possessed, with a view to forming a great collection for permanent deposit in an institution. As the years went by, she acquired paintings, statues, tapestries and other textiles, ceramics, baskets of primitive peoples, and other antiquities, and came to look upon the University of California as the destined recipient.

By 1899, the concept of a great University Museum, serving not only the academic community but the people of California, had taken clear shape in her mind. She resolved to widen her efforts and to enlist the services of specialists. She provided for an expedition to Egypt, of which Dr. George A. Reisner became the head; for another to Peru, with which Dr. Max Uhle was entrusted; and Dr. Philip Mills Jones was placed in charge of explorations seeking to preserve tangible evidences of the prehistory of the Californian aborigines. Dr. Alfred Emerson was delegated to spend three years in the collection of antiquities of the peoples of ancient Mediterranean civilization.

During 1900, these expeditions continued active; by 1901, a mass of objects had arrived at the University and further collections were in prospect of receipt. The University thus found itself with the substance of a Museum actually in its possession, but without building or housing equipment. It was also the beneficiary of the researches which were being maintained in connection with the explorations provided for by Mrs. Hearst. The time for organization and systematic planning by the University had come.

At the suggestion of President Benjamin Ide Wheeler an informal meeting was called at Mrs. Hearst's Hacienda del Poso de Verona near Pleasanton. In this meeting there participated, at Mrs. Hearst's suggestion, besides herself and President Wheeler, Mme. Zelia Nuttall, Miss Alice C. Fletcher, and Professor F. W. Putnam. After consideration of plans for the encouragement of anthropological and related research at the University, and for the establishment of a Museum, it was decided that Mrs. Hearst and President Wheeler should bring the subject before the Regents of the University, of whom Mrs. Hearst at that time, as until her death, was an honored member.

Accordingly, on September 10, 1901, President Wheeler presented to the Board of Regents a statement which was entered in full upon the minutes and which embodied the following passages:

The work which Mrs. Hearst has been conducting under various heads, all looking toward the collection of material illustrative of Anthropology and all its subdivisions, is now offered by her to the University of California, to be created into a consolidated Department of Anthropology, free of all expense, to the University.

Mrs. Hearst's plan is to give the opportunity of the conduct of that Department to the University, and to support it; the Department to be guided for the present by an Advisory Committee.

The work of the Department may be thus defined:

1. Conducting special researches in the field and laboratory in the various subdivisions of the Department.
2. The preservation of materials and facts secured, and the formation of a Museum.
3. The diffusion of knowledge by publications and lectures.
4. The final establishment of courses of instruction and researches in the University.

The President further recommended that the Advisory Committee consist of seven persons; namely, the five who had met at Mrs. Hearst's hacienda and Dr. Franz Boas and Dr. John C. Merriam. He recommended also the appointment of G. J. M. E. d'Aquin as assistant secretary and executive officer of the Department, of A. L. Kroeber as instructor, and of P. E. Goddard as assistant in Anthropology.

The President's report was unanimously concurred in by the Regents, Mrs. Hearst's plan being thereby accepted and the proposed Department and Museum of Anthropology instituted.

After a year the Advisory Committee recommended the transfer of its functions to a smaller body, comprising those of its members to whom meetings at the University were conveniently accessible. Direction was therefore placed in the hands of an Executive Committee consisting of President Wheeler, Mrs. Hearst, and Professors Putnam and Merriam. Two years later the organization of the Department was completed, headed by F. W. Putnam as Professor of Anthropology and Director of the Museum; and the Executive Committee ceased to meet. Professor Putnam remained in charge until his emeritus retirement in 1909.

As the collections which Mrs. Hearst's generosity was assembling had begun to arrive in quantities before the institution of the Department, they had been temporarily deposited in what was then known

as the Myers Cottage, the nuclear building of what later became the University Infirmary. Recognizing the need of a larger building and one better protected against fire risk, Mrs. Hearst in 1901 offered to erect for the University an iron storage structure. This gift was gratefully accepted by the Regents, and after its completion early in 1902 the accumulating collections were transferred to their new home.

Before long, however, this building also proved inadequate. Mrs. Hearst, the Advisory Committee, and the Regents concurring, the collections were therefore transported once more, this time to an ample three-story building in San Francisco, comprising the westernmost of the three then known as the Affiliated Colleges of the University of California. This structure had been erected by the state for the Hastings College of Law but had remained unoccupied. It afforded more space and better fire protection than had heretofore been available, and was also well lit and unusually adapted for museum purposes. Mrs. Hearst provided the means for the erection of shelving, storage racks, and other equipment. A considerable part of the collections could now be removed from their packing cases and became accessible for inspection and study as well as protection from deterioration.

The transfer of the collections to San Francisco released the iron structure on the campus for other uses. The casts of Greek and Roman sculpture which had been included in the acquisitions of antiquities authorized by Mrs. Hearst, have remained in this building. Besides serving as models in the teaching of drawing, they have acted as a stimulus upon the aesthetic life of the University. Specially selected collections of material illustrative in the teaching of Anthropology have also been retained in this building. The space not thus utilized has gradually been converted into office and class rooms, and has served to give the anthropological activities of the University an abiding place.

The inventorying, preserving, and arranging of the contents of the Museum made progress year after year until in 1911 it appeared that relatively slight changes in equipment and operation would enable at least half the collections to be transformed from a condition of accessible storage to one of public exhibition. With unabating interest Mrs. Hearst provided for the alterations, and on October 3, 1911, the Museum was formally opened by her and President Wheeler in the presence of several hundred guests. Since that time it has been open to the public six days in the week, and has attracted from ten to thirty thousand visitors annually.

The collections displayed at the outset were those from Egypt, Peru, the Graeco-Roman civilization, the Indians of California, and the North American natives. From time to time installations have been made in other rooms, until now there are additional exhibits illustrative of Asia, the various Oceanic regions, and the American Indians of the Southwestern, Plains, and Northwest Coast areas. For several years also there was maintained a Revolving Exhibit. This placed on public view for specified periods collections that ordinarily, on account of lack of space, were kept in storage, or that were of a synoptic character, or otherwise of particular interest.

The opening of the building to exhibition also made possible the development of popular lectures. These were in two series: one designed primarily for adults, and held chiefly on Sunday afternoons; the other arranged by coöperation with the Superintendent and Board of Education of San Francisco for school children visiting the Museum in classes on week days. Both series continued successfully for many years, the number of children visiting the Museum in classes averaging about ten thousand annually.

With all this activity, however, the Museum in San Francisco was regarded by Mrs. Hearst and by the Regents of the University as temporary, the ultimate home destined for it being a contemplated splendid structure on the University grounds at Berkeley, opposite to and balancing the University Library. Here it has always been hoped that the treasures assembled by and through Mrs. Hearst would find a final resting place amid surroundings adequate to their inherent importance.

Of the original corps of investigators and collectors whose work precipitated the institution of the Department, Dr. Jones resigned in 1902. Dr. Emerson's work was completed in 1904. At the end of the same year Dr. Uhle resigned to assume the directorship of the National Museum in Lima. Active explorations in Egypt were concluded in 1906. Two years later the University felt itself able to assume the maintenance of the activities of the Department, which, in recognition of Mrs. Hearst's splendid interest and efforts, it has continued to meet ever since. Her beneficences, however, continued until her death. She provided for the physical maintenance of the building that housed the collections, and for its safeguarding; for the publication of the researches of the Department, especially those in the Egyptian and Graeco-Roman fields; she met many an emergency or rendered provision for development of a new activity; and

time and again contributed additional collections formed by herself or brought to her attention. Her final contribution was the bequest of a number of important works of art, many of which had long adorned her home.

From the first, Mrs. Hearst had hoped that her contributions to the Museum would stimulate contributions from other sources. In considerable measure, this expectation has been realized. Some two hundred and fifty gifts have been made to the Museum since its inception by donors other than Mrs. Hearst. These gifts vary from single specimens to important collections. Their considerable aggregate, however, still remains far surpassed by the results of the munificence of Mrs. Hearst, whose name will always remain associated with the Museum and Department as its founder in substance as well as spirit.

All of the aims of the Department as defined at the time of its organization have been prosecuted. University instruction commenced in 1902 with one course of lectures on the North American Indians, attended by three students. The teaching of Anthropology and subjects related to it has grown with the years, until of late there has regularly been offered a complete course of instruction providing for the needs of students ranging from new entrants at the University to post-graduate workers fitting themselves for a professional career. For several years the number of students enrolled in these courses of instruction exceeded a thousand.

The research activities of the Department have gradually become more and more concentrated in the field most proper to a State University: the prehistory, languages, ethnic customs, and types of the natives of California and adjacent regions. Studies in other fields have not been abandoned, but investigations concerned with the home area have been increasingly systematized. As early as 1903 the Advisory Committee, upon the recommendation of Professor Putnam, instituted an Ethnological and Archaeological Survey of California, which correlated the work already accomplished or then in progress, and has served as the basis for the prosecution of studies ever since. These explorations and investigations have been participated in, as the years passed, by an ever growing number of members of the staff, associated collaborators in other institutions, and advanced students within the Department. Prominent among these, besides those already mentioned, have been E. W. Gifford, R. H. Lowie, N. C. Nelson, Paul Radin, T. T. Waterman; all of whom held or hold staff positions.

The results of these studies of Californian anthropology have appeared in a number of organs, but for the greater part have been published in the present series of University of California Publications, which since 1903 have been issued at the average rate of a volume a year. The establishment of this series was also due to the support of Mrs. Hearst.

The present volume, which is the twentieth in the series, has been planned and contributed by members and friends of the Department, and approved and furthered by the University, as a small token of appreciation of the untiring and selfless efforts made by Mrs. Hearst on behalf of a cause which she regarded as one part of her life work.

CONTRIBUTORS TO THIS VOLUME

Franz Boas was a member of the Advisory Committee of the Department of Anthropology from 1901 until its dissolution in 1902. He lectured in Anthropology in the summer session of 1914, and again in 1922.

Juan Dolores analyzed his native Papago idiom at the University, or under its direction, during several periods between 1911 and 1914, and was Research Fellow in Anthropology in 1918–1919.

Paul-Louis Faye was a graduate student in the Department, beginning in 1916; Teaching Fellow in 1920 and 1922; Associate Curator of the Museum in 1920–1921.

L. S. Freeland was graduate student from 1919, Teaching Fellow in 1920, and Research Fellow in 1920–1921.

Edward Winslow Gifford was Assistant Curator from 1912, and has been Associate Curator and Lecturer since 1915.

Pliny Earle Goddard was Assistant in Anthropology, 1901–1902; Instructor, 1902–1906; Assistant Professor, 1906–1909.

Philip Mills Jones conducted archaeological explorations and made ethnological collections, primarily in California, under engagement by Mrs. Hearst from 1899 to 1902.

A. L. Kroeber was Instructor in Anthropology from 1901 to 1906; Assistant Professor, 1906–1911; Associate Professor, 1911–1919; has been Professor of Anthropology since 1919, and Curator of the Museum since 1908.

Robert H. Lowie, in 1917–1918, and since 1921, has been Associate Professor of Anthropology.

W. C. McKern was Research Fellow in Anthropology in 1917 and 1919; and Teaching Fellow in 1922.

W. L. Marsden was informally associated with the Department for several years before his death in 1913. His manuscripts were presented to the University by his widow, Mrs. Clara Marsden.

John Alden Mason was University Fellow in 1910–1911, and Research Fellow in Anthropology in 1916–1917.

Ruth Earl Merrill was student in Anthropology in 1917-1918.

Gilbert Natches visited the Museum in 1914 to write his native Northern Paiute language.

Edward Sapir was Research Assistant in Anthropology in 1907-1908 and Lecturer in the summer session of 1915.

Leslie Spier was Associate Curator and Lecturer in 1920.

E. G. Stricklen is Associate Professor of Music.

T. T. Waterman was Museum Assistant in 1907-1908; Instructor in Anthropology, 1910-1913; Assistant Professor, 1913-1918; Associate Professor, 1920-1921.

NOTES ON THE TILLAMOOK

BY

FRANZ BOAS

NOTES ON THE TILLAMOOK

FRANZ BOAS

The following notes on the Tillamook of the Oregon coast were collected incidentally during a search for the last survivors of the lower Chinook on the Siletz Reservation about 1890. They were obtained from an old Tillamook called Hyas John and from an old Siletz, one of the very few survivors of the tribe who remembered the Siletz dialect.

Comparatively little is on record concerning the Oregon coast tribes, and since the rapid disintegration of their culture there remains little hope of much information about them being secured. They are, however, the principal link between the Indians of northern California and those of lower Columbia river and Puget Sound. It seems desirable, therefore, to make available the data obtained.

The name Tillamook, by which the tribe is known, is actually a Chinook word, *T'lilēmuks*, meaning *Those of Neēlim*, the stem of the word being -qēlim. In lower Chinook, the initial q is transformed into a glottal stop before the accented syllable.

FOOD

Roots were cooked in pits; stones were heated, put into the pit, and covered with grass; then the roots were placed on the grass. They were covered with grass and finally with soil, after which a fire was lighted on top. No water was put in.

Dried elk meat was boiled in a kettle made of the bark of the Douglas fir, which was first heated over a fire and then pressed into a hole made in the ground until it lined the hole. Water was poured into the bark vessel, and bones of the elk and dried meat were thrown in. Then red-hot stones were placed in the water.

HOUSES

The houses were built of cedar planks. The men made large, wide boards, which were burned, and smoothed by scraping the charred wood. No nails or pegs were used. The planks were placed between

two poles and rested on loops made of vines by means of which each pair of poles was held together. The houses were rectangular and very long, with a round door in each side, and two or more fireplaces in the middle. Three families lived in each house. The beds were generally arranged along the walls and separated from the main room by matting. When many persons lived in one house, beds were also arranged between the two fireplaces. The persons living in each house were generally relatives. Provisions were kept in a separate house, which was made of grass. The grass walls and roof were placed between pairs of poles which were tied together in places. These storehouses, which belonged to the women, had the same plan as the dwelling houses. They were used only in summer. The provisions were packed in baskets; they were placed about four or five above the ground, near a fire, to dry. Provisions were never dried outside the house. Sometimes poor people lived in grass houses in winter as well as in summer.

Sweat-houses were made of two pairs of poles tied together. They were covered with hemlock bark, which in turn was covered with soil. Outside the house a fire was made in which stones were heated until they were red-hot. They were then thrown into the hole which had been dug in the floor of the sweat-house and were sprinkled with water. There was no rule as to the number of stones required. The sweat-house was used only in case of sickness.

CHIEFTAINCY AND WAR

There were two chiefs for every river, among the Tillamook as well as among the Alsea. It was their duty to take care of the people. They had to guard against attacks by people from neighboring rivers. One of these two men was the principal chief. Only chiefs owned slaves. The chiefs also had messengers, poor people of the tribe, not slaves, who carried out their orders.

If people wished to make war upon a neighboring tribe, an agreement between the two town-chiefs of the river towns was required. In such a case a meeting was called of the inhabitants of the river towns. A messenger was sent out who informed the men secretly to come to an appointed place. Only men went there. When war was decided upon, the warriors started without the knowledge of their wives. The messengers of the chiefs were present at the council. First, the two chiefs met and discussed the matter in hand. If

they did not agree, the planned expedition was not made. If they did agree, they called together the people, who had to obey their orders. The chief distributed weapons and the men set out and attacked the enemies during the night. Everybody was killed except the women. If the enemy made resistance, the attacking party returned into the woods. If possible, they shot upon the enemy from above. The chiefs led the expedition, but they themselves did not fight; they only talked to the people. The enemies did not try to kill the chiefs. Chiefs could call off the warriors at any time.

If a chief demanded a tribute from the people of another river and it was denied, a war would result.

The people living at the headwaters of a river had the right to go down to its mouth and hunt there. There was no law forbidding the people on one river to catch fish in another river. Only when a person committed murder, they took revenge and made war. Sometimes the villages were protected by stockades.

BIRTH AND CHILDHOOD

During pregnancy, the prospective parents were not allowed to eat the foot or the knee of an elk, otherwise the child would have feet and knees like the elk. If they should eat sturgeon, the child would have a small nose and small eyes; if they ate clams, the child would have a large mouth. They must not wear bead necklaces, otherwise there would be marks around the child's neck.

The person who made the cradle was paid for his service. When the child was born, all the relatives were called into the house, because it was believed that the child would not die if he saw all his friends, who called it by the proper term of relationship. The cradle had the form of a small canoe, and was painted. The parents engaged a shaman who performed a dance carrying the child in its cradle. This was believed to make the child an expert canoe-man and to prevent the capsizing of his canoe. Girls, while still in the cradle, were given digging sticks and baskets. It was believed that this would make them successful in digging roots and gathering food. The mother must give away all the property that was in the house. Very soon after birth, the head-presser was put on. Whenever the child was washed the face was rubbed down, the nose pulled, the arms and legs rubbed down. This was generally done three times a day. The head-presser was kept on until the child was able to walk. If the

couple had older children, they were sent away at the time when the infant's ears were pierced, to stay away about a week; otherwise, the ear would swell and the infant die. When the child began to walk, an old woman was engaged to sing for it, in order to keep it well. The stones and canoe that were used when the child was born were carried into the woods and hidden. Nobody was allowed to see them. Newborn children were believed to be wise and to know the thoughts of every person. They would die if they were treated badly.

PUBERTY

When a boy was about twenty years old, his father would send him into the woods and up the hills to obtain a guardian spirit. He was given a piece of a blanket and was required to deliver a speech stating what he intended to be—a hunter, shaman, or warrior. After the young man had been out fasting for some time, the guardian spirit of one of these occupations came to him and accordingly he became a hunter, shaman, or warrior. For three or four nights he would swim in cold water.

Girls were also able to obtain power. A young girl who wanted to obtain a guardian spirit was placed on a large plank on which she had to squat for several days, her elbows resting on her thighs. During this time she fasted. Her head was covered with a basket cap, and her blanket was adorned with dentalia and abalone shells. She had a fire of her own and had to stay by herself. She also cooked for herself. She did not use a sweat-house. Sometimes she would dance during the night. An old woman was appointed to watch her. Generally a woman shaman was selected for this purpose. In payment for her services, the old woman took all the ornaments and clothing the girl had worn. If her father was a poor man, his neighbors helped him pay. After two days, the girl was sent out at midnight. She had to go up the mountains and bathe in ponds. The following morning she returned. After she came back she was given new dentalia, was not allowed to sit near the fire, nor touch the fire. After she had been in the house for two days, she had to rise early in the morning before sunrise and had to swim in the river. After her bath she was rubbed with rotten wood. This was intended to make her skin as white as the white wood. Two or three women must watch her, and when she reentered they decorated her and painted her with red ochre. She was given something to eat before the birds began to sing. It was believed that if the birds should

begin to sing while she was bathing in the river, she would die. After the performance of all these rituals, her hands were tied and then she was allowed to touch the fire again. The first time she touched the fire she had to use a very long poker. After she had attended to the fire, she was scratched with a flint knife all over her body until blood flowed. During the whole period of preparation, she was not allowed to eat elk, deer, or beaver meat nor any berries. After the whole ceremony was over, a woman shaman was employed, who gave her berries to eat and who received a large payment for this service. Before the girl began to eat the woman shaman sang for her. She would sit about eight feet distant from the girl and throw the berries into her mouth. If she missed, it was a sign that the girl would die young.

These observances were not kept in the case of children of slaves. Girls were allowed to eat roots and fish and shellfish caught with the hand or with hooks. They were not allowed to eat anything killed with the bow or caught with a net; otherwise the bow or the net would become unlucky. A girl must not come near a sick person, because the person might die.

MARRIAGE

A young man who wanted to marry had to engage a messenger to speak to the girl's father. This messenger was paid before he started. He was given dentalia, which were hung around his neck. It was considered honorable to buy a wife at a high price, otherwise the children would be laughed at and called slaves. If the girl's father accepted the presents he sent a return payment through the messenger. About a week later, the young man went to get his wife. His relatives collected much food of all kinds, and they contributed money to the purchase price of the girl. The girl's relatives stated on what day they intended to bring the girl. Her father had to pay as much as he received. As soon as the relatives of the young man had assembled, they paid the purchase price to the girl's father. Then the young man and the girl were allowed to sit side by side, and the father of the girl and the father of the young man delivered speeches relating to the agreement of marriage. One of the husband's friends had to guarantee a fine, in case the young man beat his wife. After the marriage ceremony, the people were feasted with berries, fish, and meat. After the feast, the girl's father distributed, among the young man's relatives, food which they took back home. Once every month this exchange of visits was repeated.

After marriage, the young couple stayed for five days with the bride's father. At the end of this period they removed to the house of the groom's father, with whom, also, they stayed for five days. Then they returned to the wife's father, with whom they generally remained. They might, however, change their residence later on.

The young man was instructed by his father to cut wood for his father-in-law. In this he was assisted by his brothers and neighbors. He also went hunting and fishing for his parents-in-law. Every time the young man went to visit his parents-in-law he took food to them.

The purchase price for the wife was generally one adult slave and a child slave. Levirate was customary.

BURIAL

Burial did not take place directly after death. The body was kept until all the relatives were assembled—sometimes for five or six days. After they had assembled, they gave shell-money to the body, to be buried with it. They put dentalia around the neck and painted the hair. They put anklets of haliotis shell around the feet, decorated the body with haliotis shells, and put rings of dentalia on the arms and wrists. A good, expensive boat was painted red and placed on forked poles, so that one end was a little higher than the other. A hole was cut in the bottom and a board placed underneath to keep dogs and wolves away. The body was placed in the middle of the canoe which was then covered with another canoe, placed over it in inverted position. After this had been done, posts were put up, which were nicely painted. Holes were made in dishes and these together with the baskets which the dead had used were hung up on the canoe. Everything that the deceased had used for eating and fishing was given to him, and was hung up on a long stick over the canoe. They believed that he would take it all along.

BELIEFS

It was said that if a canoe passed the "Medicine Rocks" called Tk'a and the canoe-men did not sacrifice and pray to them, the canoe would sink at once. The "Medicine Rocks" consist of three rocks, on two of which the heads of persons may be recognized. On the left side of the master of the salmon stands his wife, both of them easily recognized; on his right side is their dead child. When the transformer, Tk'a, left the Siletz country, he assumed the form of this rock.¹

¹ See page 12.

In the country of the Alsea he transformed himself into a dead tree which never rotted. A person who passed the tree must shoot an arrow into it. The trunk of the tree is now full of arrows. It was said that if the people wasted the berries that they picked, Tk'a became angry and the following summer there would be no berries and it would be dry. The master of the salmon brought the "warm-house dance" from Wailaki.² The Shasta and Rogue river Indians have the same dance. Originally it did not belong to the Siletz.

When people were having a discussion, their speeches, it was said, would go back to Tk'a; who was also considered the ancestor of the Siletz.

ECLIPSES

During an eclipse of the sun or moon, all the shamans assembled and danced for five nights. While the eclipse lasted, every vessel in the house was turned over, and the people were not allowed to eat. They praised the moon or the sun. They believed that the transformer was angry and wanted to destroy the world. Nobody was allowed to look upward. If a person had to leave the house, he must look down to the ground. It was believed that the killing of a person strong in magic caused the eclipse, and the vessels were turned over so that his blood should not drip into them.

THE FIRST SALMON OF THE SEASON

The first salmon of the season was given to the chief, who had to eat the whole fish, head, tail, and all. It was put on a frame supported by four forked sticks placed in a rectangle. Over each pair of these sticks rods were placed, which were again connected by a number of cross-rods. The fish were roasted on the cross-rods. After they were done they were cut with a string and divided among the people. One person, who knew all the taboos relating to the manner in which the first fish were to be treated, had to do this cutting. The bones were thrown into the fire; the whole roasting frame was burned and also the material which was used for cleaning the salmon; the blood was wiped up carefully and burned. They continued to do this for about a week. If the people did not eat the salmon carefully, but just threw it into the water without using it, the master of the salmon would become angry and take back the salmon, and the people would become sick. The Alsea boiled the first salmon.

² Perhaps Yreka—pronounced "Wyreka"—in Shasta territory.—Ed.

At this season the people also held a dance. Two canoes were tied together and connected by a platform, upon which the shaman in charge of the fishing danced.

Just as many salmon as were killed went back, even if they had been dried. When a person roasted salmon and burnt one side, the salmon, when he returned to his master, held his hands to the burnt cheek. If a person harpooned a salmon and lost his harpoon point, the salmon took the harpoon along and laughed at the man, and the man had to die. The fish then painted his face and danced like a man who had killed another person. At night, when they played, the salmon became real men. Shamans were able to see them there. At such a time the shaman would not go out. Shamans did not eat a certain species of salmon, but gave them away when they caught them. (?)

Fish whose skin has been removed to make bags for fish roe, are entirely naked when they return to their country. They complain that their clothing has been taken away from them.

There was a separate method of treating the fish for every river, because there was believed to be a separate master of the salmon for each river. The methods of cutting the fish were different. Thus it was that the fish could be recognized when they returned to their country.

SHAMANISM

When the narrator's father wanted to become a medicine man, he fasted for five days. Every evening he sang and danced. His face was painted and his head was decorated with feathers. He had two carved wands, called *qelqaloxten*, with a head at one end and a figure of two men at the other end. These wands were said to belong to the salmon. The head of a humming bird was tied to one end. His father danced with the carved sticks for two nights. After he was through with these sticks, he took two others, which were painted with coal. The last night he danced, he asked his people to tie two canoes in the middle of the river. In the village they had nothing to eat. On the following morning, he sent two boys to the canoes and they found three salmon in them, although nobody had been there. This was considered proof that he had power over the salmon.

The shaman used a small bone to kill his enemy. The bone was nicely smoothed and a hair was tied to one end. The enemy into

whom it was thrown must dry up and die. If the person was to be cured, this bone must be taken out of his body; then the medicine man who cured the sick person showed the bone which caused the sickness.

LIFE AFTER DEATH

If a bad person died he was seen at the place where he had been buried, and he had to stay there a long time and could not find his way to the country of the ghosts. Such a person would knock at the houses. Sometimes it took a year before he found his way to the land of the souls, which is in the sky.

The people learned about the country of the dead in the following manner: A person had died. The body was kept in the house for five days, while the people were dancing a great shaman's dance, trying to bring him back. After the fifth night, the dead one arose and asked to be given something to eat. Then he told them all he had seen. The soul of man after death had to travel a long time. He followed a trail and after two days, when he had nearly reached the country of the souls, he came to a river. There he had to sit for ten days, if he was a bad person. After ten days a canoe came across to get him. When he reached the other side, all the souls were gathered in one house. They were very glad that another person had arrived to live with them. In the evening they danced. The river was full of fish, and there were beautiful birds there and game was plentiful. Old people were young again. Tsaa'i'yahatl is the master of this country.

A bad person took the wrong trail, on which there was no food, and where he was kept for some time until he was guided back to the right trail. If he was very bad, he continually took the wrong trail and went to a bad country, which is below. When he arrived there, the chief gave him his left hand, made him his slave, and maltreated him. First, he was boiled in a big kettle. This was done because he had a bad smell and had to be washed, but he could not die. Then he was given new clothing, and snakes and vermin were his food. Sometimes he was thrown into the fire where he had to stay. The good people who went to the upper world would come back, but they did not know when. The bad people never came back. They believed the good would return in the same form they had had when living.

If a child died, and another child was born soon after, it might be the same child who had returned. A similarity of marks or outer appearance was taken as a proof of such identity. They did not believe that adults might be reborn as children. Adults did not return, because they knew how to get food in the country of the dead, but children did not know how, therefore they cried because they had nothing to eat. They wished to see their fathers and mothers, and the chief sent them back to their parents.

CEREMONIALS

The people would go from one place to another to dance. They were paid for their dancing. The dances which were practiced here came from the south. The people were not always invited to make these dances, but sometimes came of their own initiative; nevertheless, they were paid for dancing. They used masks. Some of these masks represented birds. In early days, the dances were known as the Rogue river pantomimes. The dancers also used aprons and rattles, but no leggings. Masks were never worn by shamans.

TALES

1. The transformer Tk'a traveled all over the world. He was also called the master of salmon. He created everything and commanded the people to be good. When he came to the mouth of a river he tried to make a cascade at that place. When he was traveling about, he carried a bunch of arrows. When he came to a nice place he would take out some arrows, break them to pieces, and throw them down. Then he began to shout as though he were going to dance, and the arrows would be transformed into human beings and begin to dance. When day came he would take his quiver and the arrows would go back into it. This was his way of amusing himself; he did this every night whenever it pleased him. When he came to Siletz he called the people his relatives. When he left he transformed his body into the rock Tk'a,³ while his soul went to the country of the salmon from which the fish come every year.

2. A man went out to sea and found a whale. He called the people together and they began to carve it. The man who found it cut open its stomach and crawled into the hole he had made. The people who were cutting off pieces of the whale skin became angry, because this

³ See page 8.

person had cut right into the body of the whale, and one of them expressed a wish that the whale might drift out to sea. As soon as he had wished so, the whale went adrift. After a while the man who had crawled into the stomach of the whale came out, and discovered that he was adrift. Not even the mountains of his country were in sight. Then he began to cry. A strong wind arose and he felt very cold. He went back into the whale, where he was protected against the cold. For a whole year he drifted about, and since his head, while he was in the whale, rubbed against the walls of the stomach, he lost all his hair.

One day when he came out of the stomach he saw many canoes. He thought, "I wish the people in these canoes would take me ashore." Then he shouted, "Come here." The people asked, "Where do you come from?" He replied, "At one time my people cut this whale, and they became angry with me and sent the whale adrift. I alone stayed in the whale. I have been here a whole year. Please take me ashore!" One of the people replied, "My canoe is too small; if it were larger, I should gladly take you ashore, but none of us has a canoe large enough for you. When you see one, call it." After a little while, the man saw a larger canoe coming. He shouted and the person in the canoe approached. He told him what had happened to him, and the man agreed to take him ashore. The canoe-men did not paddle, but sang, holding their arms with elbows extended from the shoulders and lifting their hands and moving them down again. When they made these motions the canoe passed rapidly through the water. It was not long before they landed in the village of the man. He went right up to his house, where his father, his mother, his wife, and his child lived. He found them, but they were all blind, because for a whole year they had been weeping. Then he washed their eyes with water and thus restored their eyesight.

3. A married man was going to catch salmon in a small brook. He went up the river, and when he was near the source of the brook, he heard the voice of a bird, which cried, "Ho!" He thought, "What bird may that be? Certainly it must be very large, because its voice is so loud." He went on, and after a while he heard again the voice of the bird—"Ho!" He looked upward, and thought he would discover it, but did not see anything. He was wearing a grass blanket, tied together under his arms and reaching to his knees. He went on and looked around, trying to find the bird. Suddenly he saw a man approaching. He was afraid. When they met, the man asked him,

"Why are you afraid? I am the one whose voice you heard; you wanted to see me, and here I am. Look at the bearskin I wear. When I shake it, it thunders." Then he assumed the shape of a bird. The young man took off his blanket and leaned his spear against a tree. The bird put the man in his armpit and told him to shut his eyes; only when they arrived at the bird's home was he to open them. The bird told him that if he should open his eyes while they were flying, they would fall down and die. While they were flying, the man became exceedingly warm in the armpit of the thunder bird, but he did not open his eyes. They flew for a long time. Finally they arrived, and the bird told the man to open his eyes. Only sand was to be seen; there was no vegetation at all. They had reached the country on the other side of the ocean. Then the thunder bird took the visitor to his house, which was built of whale skin. The entrance was the mouth(?) of the whale. He stayed there.

One day, when the young man went to the water, he saw many salmon. He thought, "I wish I could eat them." He made a salmon-harpoon, and the next day began to catch salmon, and carried them back home. The thunder bird took his spoon and put the salmon into it. He placed them by the side of the fire and gave one of the salmon to the young man. The others he ate himself. In the evening the young man went out and saw people fishing with torches made of pitch wood. He did not know what they were doing. The thunder bird knew at once what the young man was thinking, and said, "They are catching salmon," meaning, however, that they were catching whales. The next morning when the young man went out again, he saw that each of the canoes had caught a number of whales. After he had stayed there for a year, the thunder bird asked him, "Do you wish to return home?" The young man expressed his desire to return, and the thunder bird carried him back to Nestucka, and took along two large whales. The man was found by his people, who carried him back home. In the evening they made him sing. On the following day he sang, "Go to the beach where you found me." He sent two people, who found the two whales, lying a short distance apart on the beach. The messengers went home and reported that they had found two whales, and the people went down, but the young man told them not to carve them. Then he went down and carved the whales. He saw the thunder bird sitting on a rock not far from the beach. Its tail reached from the rock to the water. Then the

people came from all parts of the country to buy whale oil from the Nestucka and they gave in exchange dentalia and other valuable shells.

4. A man went into the wilderness to obtain supernatural power. He remained away for a whole year, and when he came back he climbed a rock on the Nestucka river, where he stayed. He had almost lost his senses after his long fast. One day his two sons, who were sad, because they did not know what had become of their father, went out. They came to the beach and reached the rock. They were carrying bows and arrows, and the elder one said to his brother, "Let me look whether there are any birds on this rock." He climbed up and looked about. Then he saw his father sitting on top staring out over the sea. He was singing. His face was painted and his head was decorated with feathers. The boy recognized him and retreated quietly. He ran to his brother and said that he had seen their father. He said, "I am afraid; I fear he has been transformed into an evil being, he looks so curious." The father did not see the boys. They ran home and told their mother what they had seen. Their father had five wives. When they heard the report made by the boys, they sent to the other houses, and four men went out to the rock. When the men reached the man they addressed him, asking why he was acting this way. He did not reply, but continued to sing. Then they took hold of him and carried him home. When he reached the house, they made a bed for him, called all the people, and made him dance. When evening came they began to dance; then he spoke. Early in the morning he asked them to take him up the river to a small lake, where he was going to continue his dance. Three men took him in a canoe across the lake, while others went along the shore. When the canoe reached the middle of the lake, it began to circle about; the stern went down into the water, while the bow stood up vertically. The men who were carrying the dancer saved themselves by swimming ashore; the dancer, however, was drowned. They searched for his body, but could not find it. Finally, in the evening, they said, "Let us go on to the place where he was going to dance." Before they arrived, the chief came out of the house and told them to prepare themselves, to comb their hair, to paint their faces, to sing and to dance. They inquired, "How can we dance when we have lost our dancer?" The chief said, "That doesn't matter. You shall dance anyway." Then they prepared themselves and soon entered the house. When they entered, they found the dancer ready,

painted and decorated with feathers. They were surprised and afraid. He danced the whole night. In the morning they were hungry and sent three boys up the mountains to hunt elk. The boys wanted to take their bows and arrows, but the dancer told them that all they would need would be a knife to carve the elks. The boys thought that this was a curious request and the dancer knew at once what they thought. He said, "You believe that you cannot kill the elk without bows and arrows, but all I want you to do is to go and fetch the meat of the elk that I shall have killed before you get there." The three boys went and when they reached the top of the mountain they saw lying there four elks which had just been killed. Blood was flowing from the cuts in their throats. They skinned them, boiled some of the meat, and carried back all they could carry. When they reached the house, the dancer questioned them, "Did you bring the meat?" They showed what they had brought and boiled it. After the boys had rested awhile, he sent them to the sea to get whale meat. In the evening they came back carrying whale meat. They danced again the same evening. On the next day he sent some people up the mountains to get elk meat, and others to the sea to get whale meat. Whenever the people needed food, he would sing and thus obtain elks and whales for them for which he was paid.⁴

⁴ A number of Tillamook myths were published in the *Journal of American Folk-Lore*, xi, 23-38, 133-150, 1898.

PAPAGO NOMINAL STEMS

BY

JUAN DOLORES



PAPAGO NOMINAL STEMS

JUAN DOLORES

EDITED BY J. ALDEN MASON

INTRODUCTION

BY

J. ALDEN MASON

The Papago nouns here given have been gathered mainly from the texts of Juan Dolores written for the University of California in the years 1911–1913 and 1918–1919. This considerable body of material was typewritten by the editor and all nouns excised from the carbon copy, arranged, and compared. To these nouns was then added the large number of nominal stems published as a part of the author's *Papago Verb Stems*¹ and, to make the list as complete as possible, the nouns collected by the editor, in text and grammatical notes, in the winter of 1918–1919, were added. The various renderings were then compared, the standardized stems divided into natural groupings, and the manuscript typed.

The seven general groups of animals, body parts, botanical terms, natural phenomena, artifacts and manufactures, personal categories, and abstract terms have been observed, and within each the stems have been arranged in the phonetic order a, e, i, o, u, m, n, l, s, c, h, v, w, b, p, d, t, dj, te, g, k. Words of doubtful form or meaning and all *hapax legomena* have been starred with an initial asterisk and words derived from Spanish or other languages put in italics.

A brief key to orthography and pronunciation is all that can be attempted here. The phonetics of Papago have been described by A. L. Kroeber in his explanatory note to the author's abovementioned contribution, and the orthographic system there developed has been here adopted with slight variations. They also differ in very slight degree from those of Tepecano described more fully by the editor.²

¹ Present series, x, 241–263, 1913.

² Tepecano, A Piman Language of Western Mexico, Ann. N. Y. Acad. Sciences, xxv, 1917.

The symbol *e* has been used in place of the *ü* written by the author and the *ö* preferred by the editor. This has been done primarily for typographic reasons, but the substitution is not a random one, inasmuch as the *ö* of the Piman group of languages relates to the *e* of the other Sonoran and Uto-Aztekan languages.

l as an initial sound is found solely in words of Spanish origin. The writer frequently heard and wrote it as *r*.

The question of the sonant stops and affricatives is a most difficult one. As in Tepecano, the difference is very slight and confusion certain. The editor was frequently at fault in his renderings while the author was never fully convinced of the existence of sonant stops. Taught at first to write all as surds, he was never able accurately to distinguish between them. However, the surd stop is always preceded by a voiceless sound, generally either the aspirate *h* or a voiceless vowel, while the sonant stop is as invariably preceded by a voiced sound or a glottal stop. This then is a certain criterion when the determining factors have been correctly noted. Unfortunately this was frequently not the case. The criterion, moreover, was useless in the case of initial stops since, in the author's texts at least, words were written with their phonetic values when isolated. Consequently it has been impossible in many cases to determine whether a given stop is surd or sonant. Only when the testimony was overwhelming—uniform phonetic rendering, or sonant rendering by the editor together with a sonant correspondent in Tepecano—was the author's surd changed to a sonant. In all doubtful cases, the stop has been left written as a surd, though generally the preceding sound is sufficient to identify its nature.

An effort has been made to give each noun in its simplest form. It will be noted that the orthography frequently differs somewhat from the form given in the author's *Verb Stems*. There the stems were given in the phonetic forms they take when isolated; in this case all changes due to phonetic laws have, as far as possible, been eliminated.

The editor must plead guilty to numerous inconsistencies in the preparation of this article. While most of the nouns given are true stems, a few cannot qualify under this title and are given merely because they are important and occur in texts or notes. In this class are words, usually pertaining to artifacts and manufactures, ending in the instrumental suffix *-kuht*, and others ending in the suffixes

-*kam* or -*tam*. Occasionally two stems are united to form a noun, and, less frequently, prefixes are found. In all such cases of certain complexity, the integral parts have been separated by hyphens and, in the case of prefixes, the noun tabulated under the alphabetical order of its stem. Probably other cases of combination have passed unnoticed. In general however, nouns formed by regular means from verbs or other parts of speech have not been considered in the present list.

NOMINAL STEMS

BY

JUAN DOLORES

ANIMALS

- a'ahto, peacock
ah^to, sing
*o'ocoht, tigers
ohkohkoi, wild pigeon
u'hi'k, birds
uhimali, a kind of bug
*maiho'ki, centipede
mavi't, panther, lion
muvali, mu·varum, fly
mu·ra, mule, *mula*
*nan·ahkamal, bat
nahkeelⁱ, nahkecerem, scorpion
neboht, whippoorwill
nyuvi, buzzard
*sihki, white-tailed deer (?)
*s·uam-muaram, butterfly
*cacani, blackbirds
coi'ka, pet animal
*co'o, grasshopper
culike, ground squirrel
cu·'k, mocking bird
haivani, cow
*hauhpali, a kind of hawk
*hiohp^Etei, louse
hiwehteu, belly
hiwehteuwe'ki, small black and red spider, poisonous
hikivitci, woodpecker
*hohokimali, butterfly
huavi, deer
huh'u'čaki, bumble bee
*va·ma't, any non-poisonous snake
vahp^Ekyā'i'k, ducks
vahtohp, fish
visa'kE, hawk
vihpc, vi·hp^Eeum, wasps, hornets
vipisemali, humming bird
wopco, rats

- wu·lu·*, donkey, *burro*
 ba'a'k, eagle
 ban, coyote
 baba't, frog
 *pihsin, bear
 ta·tai, road runner
 toah-kam, animal (alive, whole)
 to·lo, bull, *toro*
 to·va, turkey
 tohtoni, ants
 tohki'tuh̄, spider
 djuw, hare, jackrabbit
 djuṭumi, bear
 tcemama'ki, horned toad
 *tcehe-kam, woodpecker
 tcehwo, gopher; pl. tee'tehwo
 *tcivihtcuhte, killdeer
 *teuavi, fox
 *tcuhtculi, hen
 tcuhkuh̄, owl
 tcuku'kcevah̄, cricket
 gaw, badger
 *gehwo, wild cat
 gohtei, wild boar, peccary
 go'ks, dog
 kaso, fox
kaviyu, horse, *caballo*
 kakaihkteu, topknot quail
 kisuhpi, small bird
 ko'oi, snake, rattlesnake
 komehktcet, turtle
 kohson, wood rat
 *kohkovah, ground owl
 kokoht̄, geese, crane
 kuaṭa'k, ant
 kulivitci-kam, a brown singing bird
 *kuvi'i't, large yellow deer

BODY PARTS

- a'an, feathers, wings
 aht, anus, bottom
 eli-ta'k, skin, bark
 e'eht̄, blood
 ibe'ta'kE, heart, spirit
 o, back
 o'o, bones
 o'o'kE, tears
 um, thigh
 *mahte'k, palm of hand
 *mahtcevita'k, large feathers
 mo'o, head, hair

- mo'oh-ték, scalp
mu·hs, vagina
*muh, wound
nahk, ear
nonha, egg
novi, hand
sih-se-vaṭa'k, saliva
sic, elbow
sihpuḥt, rump, buttocks
coh-ca, nasal mucus
*coco'pah, wrist guard
hi'i, urine
hiwehteu, groin
hiwe'-tak, hiwo'-k, sore
hon, body
ho'ki, hide, buckskin
huhuli-ka, menstruation
hu·tei, finger or toenails
viha, penis
vi·hpe'to, testicles
viki, down
wohpo, body hair, fur
wo·hk, belly, abdomen
wui, eye
wuhyoh-cah, face
bahi, bai, tail
baco, breast, chest
bi't, excrement
da·hk, nose
ta·htami, teeth
tahtai, sinew
taht̄, foot
ton, knee
teini, mouth
teini-wo, beard
teu·li, hip
teu·hu'k, flesh, meat
kahyo, leg
*kai-ca'ki, crotch
ka·m, cheek
ke·tea, semen
koia, forehead
komi, back, shell
koc, nest
*koceva, skull
*kohki, footprint
kuheo, back of the neck

BOTANICAL TERMS

- a · n, desert willow
 i · sevi'k, species of cactus
 ihu, gathered cactus fruit
 ihu'k, devil's claw, *martynia*
 iva'ki, weeds, greens
 ibahi, ibai, leaf cactus, *tuna*
 i · hkovi, a food plant
 i · hkuli, a medicinal plant (*peyote?*)
 ohpon, a food plant
 u · mu'k, species of yucca
 us, stick, tree
 u'u'se-bavi, *alimana* (tree bean)
 uhiko, stalk of soapweed
 uhiko-tee · tci, soapweed
 u'teva'k, *tule*
mi · ranyu, milin, muskmelon
 mu · noi, beans
 *muḍata'k, corntassel
 nahw, nauv, leaf cactus
 na · ka'k, species of cactus
lanicehki, lentil, *lenteja*
 ca'i, underbrush, rubbish
 ca · t, wild potato
 cekoi, greasewood
 *eu'uvahṭE, *chia*
 ha · li, ha · r, squash, pumpkin
 hacani, giant cactus, *sahuaro*
 haha'k, leaves
 ha't, a food plant
 heosi'k, flower
 ho'i, thorn
 *ho'ite-kam, *palo fierro*
 hoy'i'tci, Spanish bayonet
 hunñI, corn
 hulkikata'k, first stage of *mesquite* bean before blossoming
 va'u'k, stalks, vines, chaff
 vacai, grass, hay
 vahpk, reeds, cane, cactus-ribs
 viho'k, *mesquite* beans
 viw, tobacco
 vi · bam, milkweed (chewing gum)
 bahidak, *sahuaro* fruit
 bavi, white bean
 *pawui, species of wild bean
 pilikhani, pirkanyim, wheat
 *pu · li, clover
 tai'kah, sprouts of *vas* plant for basketry
 tahpk, seeds of a small plant
 tahtk, roots
 tahkewei, tree *yucca*

- tohawes, species of brush
 *tua, whole oak
djiawul, devil cactus, *bisnaga*
 tceolim, Djorim, species of cactus, *choya*
 tce·mi, species of cactus
 tcuni, dried cactus fruit
 teuhcuis, *pitahaya*
 kaite, seeds
kalivac, species of pea (*garbanzos?*)
 *ka'kahte, cut and burn brush to clear land
 kehpi, watermelon
 kisohki, species of cactus
 koawul, berry brush
 kohte'tohpi, *toloache*
 *kokemahtk, *palo verde*
 ku'a'ki, wood
 kuhi, kui, *mesquite*
 ku'kia, kaite'kah, seed corn

NATURAL PHENOMENA

- ahki, river bed; *arroyo*
 e'ehs, anything planted
 oyit, oit, farm
 o'oht, sand
 on, salt
o·la, gold, *oro*
 uca'pi, pitch
 mai, food cooked in ground
 maca't, moon, month
 mahtai, ashes
lantcu, *rancho*
 *sehpi-djehtE-kam, winter
 seva'ahsike, dew
 siwuli'k, whirlwind
 *cacka'tei, morning mirage
 ca·gi'k, cañon, gulch
 cu·da'ki, water
 heweli, wind
 heht, red paint
 hi'kuc'pi, mist
 ho'dai, stone, rock
 hu'u, star
 huteni'ke, evening, sunset
 vainomi, iron, metal
 va'i'ki, water in a jar
 va·muli, marsh
 vahya, well
 vaw, solid rock
 *vahkola, water-gathered rubbish
 va'ṭa'k, juice
 *vahtciki, artificial pond
 va'k, hole
 *vi·o'ohya'k, fine sand

- wo'o, natural pond
 *wo'ocani, valley
 wo · 'k, road, trail
 *wehpe'ki, lightning
 we'ki, red pottery paint
 bi, food in a dish
 bi't, mud, clay, dirt
pelomo, lead, *plombo*
 tai, fire
 tac, sun, day
 tohono, desert
 to · nehk, hill
 to'a'k, mountain
 djuhki, rain
 tceho, cave
 teeva'ki, clouds
 teeweht, earth, land, dirt, soil, world
 tce'k, prairie, hole, opening
 tcuhu'k, night, darkness
 tcuṣa'ki, charcoal, coals
 giohoht, rainbow
 *kahtcim, ocean
 kev, snow, ice
 *komaiwua'k, fog
 kowohtk, hollow
 *kohkohteki, shells
 ku · ps, smoke, dust
 ku'ku'tcuihki, mirage, heat waves
 *kutcki, firebrand
 ku'ki, a rumbling noise

ARTIFACTS AND MANUFACTURES

- ahtoli*, *atole*
 ahtoca, loin cloth
 enyi'ka, clothes, property
 et'pa, grass door
 i · na'ki, ancient skirt
 i · vi'tah-kuht, fire drill
 ihpuht, modern skirt
 *o'ohana, painting
 ola, women's double ball
 ovi'toi, awl
 u'u, war arrow
 u'u-mhaṭa'k, arrow feathers
 u · c, arrow point, insect's sting
 u'keea, windbreak
 mayin, main, woven mat
 *maiḥkuht, earth oven no longer in use
 manata'k, hobbling-rope
mantcehki, lard, *manteca*
 mahtcuht, grindstone, *metate*
 mahkoṭa'k, coupling implement
 mihtpia, cinch stirrup

- navaí't, *sahuaro* wine
ne'ih-kuht, singing-ground
liali, money, *reales*
li·aht, lariat, *reata*
lomiata'k, grass saddle
*sisedoih-kuht, sticks for toasting corn
si·wo'ta, feather tassels
sightholi, syrup
ca'ali'ki, brace for carrying-basket
ca·livi, trousers
cavilh-kuht, rattle
ca·hkim, nose halter
celina, straight stick for arrow
coni'kiwuli, racing-ball
conteki, war-club
co'piaht, doll
cu·ck, shoes
ha'a, jar, *olla*
ha'u, gourd cup, *jicara*
hace'ṭa, woven basket
hahpoht, arrow
ha'ko, cushion for head load
*hewosi, decoration
hihi'ani, cemetery
hinevali, grass mat
hi'totah-kuht, cooking-jar
hi'toht, cooked food
hoa, sewed basket
hoasa'a, plate, dish, saucer
ho'oma, best shooting arrow
hua-comi, buckskin sack
*va'ahki, house
va'i'k-kuht, water jar
va·'o, cactus-tongs
vaca, basket with cover
vacomi, storage basket
vawenata'a'k, ridgepole
vahtciho, large wooden dish
vahko, water jar, canteen
vahkus, mat, carpet, blanket
vinoi, mescal, *vino*
vite'-kuht, pestle for grinding
vi'tcina, twisted rope
weuh-kuht, sling
wegita, bull roarer
wonami, hat
*wosun·ah-kuht, broom, sweeper
woca'k, pocket, *bolsillo*
wo·ht, foreshaft of arrow
wo'kca, quiver
wuliwc'ka, grass bundle target
*wu·lih-kuht, cradle
bayohka, bayuhka, necklace, beads
*pilisa, blanket

pocoli, posole, hominy
 *daih-kuht, chair
 talivin, rope-twister
 tceoh-kuht, cane
 *tceemait, bread
 djenyih-kuht, smoking-place, cigarette stub
 *tcehtcemaihtah-kuht, griddle, *comal*
 tee'hpā, mortar
 tee-pite-kuht, pestle for pounding
 tee'h'to, fireplace-stone
 tcehtoneṭa'k, center pole of house
 tee 'k, mesquite-bean flour
 tee'ke'ṭa, race track
 *tcehtcēkoceta'h, ankle rattles
 teuakia, saddle-net
 teu'i, flour
 ga · ht, bow
 kaikia, sandal string
kalicani, trousers, drawers, *calzones*
 ki · , house, home
 ki'atā'k, handle
ki · co, cheese, *queso*
 *kicumehk, knitted handle
 kihō, carrying basket
 ki · wuht, belt
 ki · dje'k, door
 ki'k, tallow
 ki · hki, plow
kolai, corral
kohtoni, shirt, *colones*
kulani, medicine (*curar*)
 ku · kēta, hanging shelf

PERSONAL CATEGORIES

a · mo, boss, master, *amo*
 ali, baby, little one
 ahpahp, name of clan
 ahpeki, name of clan
 steu-es-kam, thief
 imi'k, relation
 o'o'tam, person, people, natives
 o · vi, opponent
 o'k, father
 o'goli, name of clan
 o · p, tribal name
 ohks, old woman
 ohkēsi, father's elder sister
 us-a'gah-kam, judge
 uvi, woman, female
 ma'i, niece, nephew
 mam, name of clan
 maht, child of woman
 steu-ma · htei, shaman, wise man

- ma·hkai, shaman, medicine man
mo'o'-betam, hunter
mo·s, daughter's child (woman speaking)
mu·hki, corpse, death
*mumuhuk'u'tam, invalid
navi'teu, clown at ceremony
nawo'tci, friend
*nye'ohki'-ka'ke'ṭa-tam, interpreter
neholi, slave
si·s, elder brother, elder sister
sulitci, baby boy
cehpitci, younger brother or sister
contali, soldiers, *soldados*
ha'djuni, relations
ha'kimah̄t, nephew or niece
ha'kimatee'E, sister-in-law
*ha'kiht, father's younger brother
hema'tekam, people
he'k, co-wife
ho'ohk, semi-human monster
honi'k, wife
hu'uli, maternal grandmother
va·vi, name of clan
viahpo'o'ge'eli, young man
vicaht̄, great-grandparents
vihpia-me'dam, hunter
vihpiohp, young-men, boys
vikoli, great-grandchild
wemeh-kam, companion, partner
wemeh-kali, leader in relationship
wena'k, assistant
*wowoiht, father's younger sister
wose-mah̄t, son's child (man speaking)
wosk, paternal grandfather
ba'a-mah̄t, daughter's child (man speaking)
ba'a-me'd-o'k, father-in-law
ba·'p, maternal grandfather
pima, Pima
da't, mother's elder sister
tahtali, mother's younger brother
topetam, one who calls hunters or racers
dje', mother
*dje'es, mother's elder brother
djisk, mother's younger sister
djiawuli, devil, *diablo*
djioc, God, *Dios*
dju'djh-kam, Mexicans
teeo'tc, man
teehya, girl
teehpa'ahvi, wanderer
*stcu-tcehce'gia'de'-kam, great warrior
ge'e, adult, elder
ge'e'dji'k, chief

ge·li, old man, father's elder brother
gowenale, governor, *gobernador*
 ka'a-mah̄t, son's child (woman speaking)
 ka·k, paternal grandmother
 kihe, brother- or sister-in-law
 kitahyo-kam, war-party
 kohkoi, ghosts
 kun, husband

ABSTRACT TERMS

ahhita'k, year
 abam-tak, luck
 *eli'ta, plan, guess
 ebenyi, fear
 eda, interior, center
 ehkata'k, shadow
 *iah'to'ki, a lie
 ibe'ta'k, spirit, heart
 ma·s, appearance, sight, light, color
 matci'k, knowledge
 *mumehkita'k, sickness
 ne'l, song
 si'ali, east, dawn, morning
 sihkoli, circle
 co'i'ge'ta'k, poverty
 con, bottom, beginning, trunk
 hime'ta'k, ways, actions, life
 hu'k, ends
 hu'ki'tci, edge, side, shore, bank
 *vaka, mixture, dough
 vahkoliwe, south
 *vi'ihkam, remnant
 weho-kam, truth
 *woki'ta, fate
 wuaka, girl's puberty ceremony
 *wuyihkam, fate
 pihu'ki'k, hunger
 toneli'k, light
 tonome'ta'k, thirst
 teuli, corner
 teupin, north
 *teuhhu'u'teuli, zigzag
 tce'kia'ta'k, war, battles
 tce'teki, dream
 gewehke'ta'k, strength
 *giwulihk, bend
 *kaitam, sound
 *kaicim, saying
 kewekohkik, tiresomeness
 s-kekate, beauty
 kita'k, life, living
 s-ko'ohk, pain
 kosi'k, sleep
 hohsi'tah-kuht, sleep-producer



NOTES ON THE SOUTHERN MAIDU

BY

PAUL-LOUIS FAYE



NOTES ON THE SOUTHERN MAIDU

PAUL-LOUIS FAYE

The following notes were obtained at Berkeley in November, 1919, from William Joseph, a mixed-blood Maidu visiting the University.

The Northern Maidu have been described in some detail by Dixon,¹ but there is little on record about the Southern Maidu beyond Powers' impressionistic chapters on the Nishinam.² Joseph's mother was from Amador county in the vicinity of Plymouth and Forest Home, and his statements may therefore be taken as referring specially to the most southerly of the Maidu in the lower foothill zone. He himself has spent most of his life in other districts, chiefly in association with whites, Miwok Indians, and emigrated Maidu.

BIRTH CUSTOMS

The woman was helped in her throes by pressure on the side. A rope, on which she could pull to ease herself, was also provided. Women "pressed" her and the same serviee was rendered to her by young men, "boys of good heart," who walked behind her (as I understood it), clasping their arms in front.

The eradle was never made before the child was born. Many children were born dead. The birth of twins was an infrequent occurrence.

Certain precautions were to be observed by the mother for a few days after childbirth. She must be eareful not to let any cold air strike her; she must not eat salt or meat; no cold water should touch her. She was to sleep seated for about sixteen days.

If two children were nursed by the same mother, each had his separate breast. When the navel string was cut it was left about two inches long; the father or the mother spat upon the stub. New-born children were never suckled at once, but on about the seeond day after birth. Then the people would hold a big feast to which all the family and friends of the family were invited. At the feast only one name, which was always the name of an old relative, was given

¹ Bull. Am. Mus. Natural History, xvii, 119-346, 1906.

² Contributions to N. A. Ethnology, III, ch. 31-32, pp. 313-345, 1877.

to the child. If all the names of dead relatives of the newborn child had been previously exhausted, then an intimate friend of the family might permit the use of his family record.

Mothers allowed their children to nurse till they were four or five years old. They wean them now when two or three years old. After weaning, the child was fed acorn soup and then meat.

MARRIAGE CUSTOMS

In the olden days the parents did the choosing. The boy's father gave away shell-money or other valuables such as blankets. The girl's parents reciprocated in baskets or other property. It was customary, however, for the girl's father to receive more than the boy's father. This exchange of gifts continued for about six months. At the end of six months the boy visited the girl's home. The parents of the boy told the parents of the girl to make down the bed, after which the bride and bridegroom retired. This sufficed for the marriage ceremony.

A big feast, called *nimpieł*, lasting from five to six days, was then held. Immediately after the feast the husband took up his residence with his wife's parents for a period lasting a year or more. The son-in-law was expected to hunt for the family. After a year had passed, he might take his wife away to another home.

When choosing a husband for their daughter, the parents would consider smartness in the young man a more desirable quality than physical beauty. A man who had the reputation of being *mukuk*, lazy, stood little chance of getting a good wife.

Frequently a girl, before she was nubile, was given to a man, not necessarily a young man, who would take care of her and "spend property" on her. Then he would marry her; nobody else was eligible.

The proper age for a girl to marry was about fourteen or fifteen years old. The same age generally obtained in the case of boys. Old maids were scarce. The informant knows of one woman, about thirty years old, who has failed to marry. She is not bad-looking and cannot be reproached, in fact, in any respect. He attributes her remaining a spinster to a love spite.

When a man in a war party captured a woman he might make her his wife. He might also give her to a friend to become his wife. She was respected the same as a Maidu woman, and after she learned to speak Maidu became one of them.

It took from about six months to a year to woo a girl. If a man was not accepted within this time he would drop his suit. A girl who refused to marry a man after having "led him on" might expect to die by magic. See "Magic."

When a man wanted to marry a widow he asked her directly, but a young man ascertained whether or not a girl was willing to marry him through her parents.

In case of unfaithfulness on the part of the wife, if there were children the husband went away leaving all the property to her that she might continue to provide for them. In olden times it was the custom to kill both the woman and her lover. They always killed the woman first because, they said, if she had not made advances the man would not have bothered her.

DEATH CUSTOMS

Cremation was the mode of burial. A pyre was built with a deposit of pitch in the center. Any kind of wood would do. A long pole was used "to scrape off the flesh."

In the old days all the property belonging to the deceased, "except his wife and children," was burned with him. The relatives of the dead man danced around his wife and sang a special song while the burning went on. All the people present took part in the singing and cried. A sort of obituary extolling the deeds performed by the deceased was made.

The body must be held until all the friends of the deceased had been notified and had seen his remains. Should a man fail to receive notice, he would be haunted by the spirit of his departed friend, but the spirit might be pacified if, though notified, for some reason or other he failed to come.

When the singing was over, wormwood (?) and water were used to quench the fire. They would let it lie through the night, then come in the morning to remove the ashes. The task of scooping out the ashes devolved upon a man who was not one of the deceased's relatives. That man was not to eat salt or meat for four days after having handled the ashes. He had to put them in a basket which was buried in earth perhaps three feet deep. A burial basket had to be shaped like a jug, though it does not appear from the informant's statement that the shape was exclusively characteristic of burial baskets. The widow used to bedaub herself, hair and face, with a mixture of pitch and acorn black. She would not rub it off for six months.

Sometimes a man would blacken his face when his wife died, but not often.

The custom today is for women to cut their hair as a sign of grief. All the relatives of the woman must do so, too.

When a woman died with a child at her breast, the people would break the child's neck and put him with his mother in the grave.

The widow had to wait from six months to one year before she could marry again. It might be that if a child was born to her within a year after her husband's demise she did not have to wait the full term.

The name of a dead person was not to be pronounced before relatives or they would show fight. Later the taboo was partially removed—the event, at least, could be mentioned. The deceased might be spoken of though his real name would be withheld.

DRESS

Woven rabbit-skin blankets were worn. Nets were used to trap the rabbits, and only those who trapped rabbits had blankets. It has not been ascertained whether the limitation implied by this statement was of an economic or conventional character. The latter would have excluded rabbit-skin blankets from among the articles of trade.

MUSICAL INSTRUMENTS

Four musical instruments were described. Only three of these truly deserve this appellation as the fourth instrument given in our list had no other rhythmic possibilities than a rattling noise such as might help dancers in keeping time.

1. Lulok, flute (?), played on the side of the mouth.
2. A flute provided with four holes and made of elder wood. "They imitate a song with it."
3. Musical bow. This instrument was played with the mouth. "It had a key on the end."³ It was played only by the medicine men.
4. Wadada', split stick. This instrument was made of elder wood and used as a clapper.

³ This is the recent form due to Spanish influence. Compare the Yokuts musical bows shown in Powers, *op. cit.*, p. 354, fig. 33. The old instrument was no doubt a fixedly strung bow.

CALENDAR

The Maidu divided the year in two parts, summer and winter. They counted months only in winter, using fire-sticks of a standard size, about half a span. They knew how much of the stick could be burned in one lunar month. When a stick was burned to a certain length they would lay it aside and use another one for a poker. Thus when the moon was not shining they would still know how much time had elapsed since the new moon or in what month they were. The old men took care of the sticks, and of course had endless discussion over them, for the sticks of one man did not always tally with those of his neighbor.

When the acorns dropped off, they knew that it was time to count the first month.

The relation between months and lunar periods is obvious, for the same word was used for both, pomboo.

The first month was called tamasim pomboq. Tamas means winter.

Nempomboq (*big month*) came next.

Manaim'kano (*small month*).

Noto'ukimpomboq.

K'alala'mpomboq.

Yomenimpomboq.

The meaning of the last month's name was rendered by the informant "the blossoming of flowers." Yo is the name for spring.⁴

HUNTING

Winter was the time for hunting by stalking and setting snares, summer for the gathering of seeds.

In summer time the Maidu used to lay nets over the water holes when all the country was dry. Thus they would catch birds and small animals when these would come for water. Their nets were made of rope of twisted grapevine.

In summer also they would snare quails, using to that end sliding loops made of women's hair. Little hedges about a foot high were built across the country with openings provided in certain places where the quail rushing through would hang themselves by the neck.

Another form of summer hunting was catching grasshoppers. Several men would enter a plot of land such as a meadow. They

⁴ Cf. Dixon, *op. cit.*, pp. 217-218. The northeastern Maidu also possessed only a part-year or winter moon count.

would dig a funnel-shaped hole and stake it by a twig of some nearby tree, each man selecting a different tree. The technique of the game was to drive the grasshoppers into the hole where they would be bagged.

Deer were hunted by means of a fire built in a circle so that they would be caught in an ever narrowing corral. The men kept close behind the fire as it ate its way inward and shot the deer when they were finally marooned in an area so small that they had no opportunity to flee.

This practice obtained in summer. The catch was divided between all the members of the party. Even when a man killed a deer alone anyone who happened to be around at the slaying expected to be handed a piece.

When the people went out hunting for rabbit they selected one of their number as head hunter. He was responsible for the conduct of operations and they obeyed him. They also took one with them who acted as a luck-bringer. Additional information as to the character of the luck-bringer is lacking. To urinate while hunting would bring ill luck.

The head hunter and the other hunters planned the hunt. It was necessary for them to speak in a whisper lest the rabbits hear them. When the first rabbit was killed the head hunter picked it up, and, pressing it tenderly against his chest, petted it and spoke soft words to it. All the hunters sighed while he was going through this performance.

No food should be carried on a hunting expedition. The meat, however little was caught, was divided equally among all the hunters. In case of a large catch some of the meat was saved and preserved for "big times."

AGRICULTURE

Tobacco, pāñ, is the only plant that the Maidu used to sow. For it, they cleared, but did not hoe the ground.

It was a general practice of these Indians to clear the forests of undergrowth by setting fire to it. They seem to have been able to keep the fire under control. They claim that it prepared the ground to receive seeds. Seeds, however, were never sown by man's hand.

PROPERTY

Acorn trees might be marked and thus become individual property. When marked, they were not to be touched by any save the marker. What sort of mark was used it was impossible to ascertain. It seems to have been something like a blaze and not to have carried any indication as to the personal identity of the individual who thereby claimed the tree. A tree even when marked had to be closely watched.

It was not well to mark a tree before the acorns were ripe: only full trees might be claimed in ownership. But ownership does not seem to have extended from one season to another. It was purely a harvesting measure; the harvest over, the tree again became "wild."

LAND OWNERSHIP

Land belonged to the family or "camp," which seems to have been the usual unit. The camp as such owned a certain gathering area and a hunting ground. There was no division of the land between individual members of the camp.

When a man, head of any family, had a piece of land that had failed to yield produce, some other man would give him some of his own land to live on for the season. All that he might claim was the seeds of the land. He might gather enough to support himself and his family through the winter. If what he could gather was not enough, his neighbor would help him out by donations.

LAW

A murderer had to reckon with the relatives of his victim who would seek revenge on his person. Only near relatives were to be feared. In case no male relative was left, a sister would pay another man to avenge her brother's death. If she had no property whatsoever, she would become the wife of the avenger.

Theft, also, was punished by death. They would track the suspected man by his footprints or compare some he had made with those left by the thief, and if the footprints matched, execution took place forthwith. What kind of death was dealt has not been ascertained: presumably by clubbing.

CHIEFTAINSHIP

Chiefs are spoken of by the informant as "captains," which is obviously the translation into English of the word as they borrowed it from the Spaniards, *capitan*. Captaincy was hereditary. Should the family become extinct, a nephew was selected. It did not matter whether he was the son of a sister or of a brother, someone had to be selected.

The selection of the captain devolved upon the old men of the tribe, and they usually selected a young man. After his selection a big feast was held to which other companies, i.e. families or camps, were invited. The new captain received a sack of acorns from each visiting company. The captain's family returned the courtesy in meat. The acorns thus offered to the captain were already hulled so that they could be used for the feast. The feast was given in spring, which seems to have been deemed the favorable time for a captain's appointment. In the fall the captains received another gift of acorns from the same families; the acorns this time were not hulled, and to hull them was the task of the people of his company. These acorns, however, were stored for future use at a certain big feast to be held when the captain saw fit, to which the families that had made a gift of acorns were invited.

From these same families the captain and his people received invitations. Before the visiting company was allowed to reach the camp of the inviting company, the captain and the other members of his party were carried over the ground by their hosts for a distance of about 300 yards. Stout fellows, added the informant, were selected. Each guest thus carried had to make a gift of beads to the man on whose shoulder he or she had ridden.

A feast ensued. In the morning water was heated in a basket by means of hot stones, and the captain's face was washed "so that he could see better." The faces of other members of his company were also washed by men from among the hosts. Old people generally attended to the washing and the captain had to pay them liberally for their offices. Old women would then come and coax the captain to give them huge sums of money, calling him handsome young man and flattering him; he made them, however, but a trifling gift.

Such a custom was a drain on the captain's resources, but the other members of his company helped him out, and soon his resources were replenished.

The captain had a partner, or deputy, a man whose function it was to speak in public. While still young or newly elected, he remained for four or five years in touch with an advisory body of three or four old men. Finally they pronounced him a man of sound judgment and he acted on his own responsibility. Failing a partner or deputy, it fell upon a captain to train his son.

INTERTRIBAL RELATIONS

Intertribal relations were difficult. The stranger was looked upon as a natural enemy and scant opportunity was he given to prove himself other. A man might occasionally have a stranger in his care, but the fact had to be kept secret. The stranger must not be seen abroad during his sojourn, and had to travel nights to return home.

A man might marry into another tribe, but he had to speak the language well before any recognition was vouchsafed him on the part of other men of the tribe. Even then he might still encounter ill feelings toward him, but as soon as he had children his position became better.

WARFARE

As a declaration of hostilities a certain number of arrows were sent by the attacking party to the people against whom their feelings had risen. The usual practice was to send three or four arrows, indicating thereby that in so many days they would attack. A brave man was selected to take the arrows to the enemy camp.

Then the two peoples would meet in some favorable spot, like an open valley or some cleared ground opening into timber. The battle did not begin immediately. The chiefs of both peoples met at some point of vantage from which they could survey the scene of action and entered into a parley. Meantime the people on either side began to dance. A line was drawn between the two camps; from either camp arrows were shot and the camp whose arrow hit the closest to the line had to put up the first man. That man would come out and face the enemy, who took a volley at him. If he escaped unhurt the other camp then had to put up a man. This continued till one of such protagonists was hit. Then his company would break away and flee. The company whose shot had thus proved ominous went after them with much hallooing, clubbing right and left, making havoc. The chiefs, too, had to abandon their position and run for life. No mercy was shown to the men. Infants were dashed to the ground.

Women and young children were spared and taken back home. The camp of the fleeing party was plundered.

The informant was asked what they would have done, had the match been a draw, no man being hit on either side. He said that in such a case the chiefs would have dispersed the people.

The Maidu did not have slaves. A woman prisoner of war became a wife. Children taken in warfare were divided among the people. A child entering the tribe that way became a Maidu of the same status as the rest. As soon as he could speak Maidu, no difference in treatment was shown him.

SOCIAL CUSTOMS

Whenever a feast was given, some family would take it upon themselves to provide for the occasion. Other families were invited several days in advance. A string was left with them with just as many knots as days were to elapse before the feast would be held. Every morning a knot was untied, so that the guests could make arrangements to arrive betimes. A "big time" never lasted less than four days and sometimes extended over a fortnight, and was always associated with a dance. A dance must last four nights or not be held at all.

The families invited camped out and entered into communication with their hosts officially through their spokesman. He made known to the head of the inviting party how many people he had brought by leaving with him a stick of a certain length. According to the length of the stick, by a rough estimate, the food was apportioned. There were three lengths of sticks, the medium size being the most common.

It was the custom of old men to make long speeches while smoking their straight pipes. Each man had his pipe. When called upon he would fill it and blow it twice, no more, and inhale with a great show of satisfaction. Then he would wipe off the stem with his hand and pass it to his neighbor who went through the same performance, and so on, till the pipe had gone the whole round of the smokers. The direction in which the pipe circulated was not ascertained. The smoker always looked upward while the pipe was blown. Such a smoking party was held before dances. The old men then found themselves all of "good language" and gave advice to the young men.

EDUCATION

Children were mostly under the supervision of the grandparents, who used to tell them stories and impart to them moral teachings.

BERDACHES

The name for berdaches was ošā'pu. Asked how there could be such characters, the informant said that they just grew that way, being half-man and half-woman in their make-up; the vocation was not enforced upon them. They worked but little, staying home and cooking. One of them is still to be found. He lives with a man. As a rule such individuals were not noted for their brightness; they were fairly well treated by men; no contempt was shown them.

SWEAT-HOUSE

The "sweat-house" or dance house was built in a round shape and supported by three main posts. The floor was excavated to a depth of several feet.

While building it the men drank acorn soup, held formal talks, and observed an appointed rite as each post was set in the ground and also when setting up the roof ladder. This was to "ward off evil." The roof was covered with brush and earth. One man was usually assigned the wardenship of the sweat-house, an office today that belongs to the chief.

The drum was kept in the rear part of the sweat-house facing the door. It was made of a log slab hollowed out, the end covered with deer-skin. Sound was produced by kicking it with the foot.

More than three posts might be used in the building of a sweat-house, sometimes four and sometimes five. When three, they were disposed in a row; when four in a square; when five in a quincunx; four in a square and the "main post" in the middle. The number of the posts and their positions might vary, but the position of the door and of the drum never did.

This large structure must be distinguished from the true sweat-house in which steam was produced, as described below under "Medicine and Disease."

CEREMONIALISM

The names of the following dances were recorded: lomuse'mpayo'q or "war-dance" in current local parlance, lolè, tūra, hiwi, k'am'in.

All dances were held around a fire. The duration of each was four days. In the tura and the hiwi there is a chorus of about eight or ten men. In these last two and in the lole a drum was used. The men in the chorus hum instead of singing, keeping time with the drum. No drum is used in the "war-dance." For beating time, the Maidu also used rattle-like implements made of sticks of elderwood, which made a rattling sound.

LOMUSEMPAYO'Q

This dance was performed when two tribes or companies had a "feud" and agreed to settle it. It was also performed when an old doctor would feel angry or merely indisposed, or when a new doctor was to be initiated.

The informant does not state positively that the companies had warlike feuds, but, from what he says, the custom seems to have been prevalent for two companies to match each other in order to find which one had the strongest medicine. Sometimes the match was between two "tribes."

The contest was conducted like a feast, which makes it hard to believe that it could have been a matter of ordinary procedure between "tribes." One company assumed the inviting rôle and bore all the expense of the feast. During the first day the guest companies would begin to pour in at the appointed place and pitch camp. Each company danced and made medicine during the night.

About mid-morning one of the guest companies would come out in a body and meet its hosts on some selected appropriate dancing ground.

As they came in sight of each other, the doctors of each company began to shoot at one another. This was a trial of power between the doctors. They kept on shooting till they got very close. Each company in turn stood the test. The doctor shot at or aimed at offered himself as a target and when hit would fall and gasp. Then he would blow the "bullet"⁵ out of his mouth, lay it on a rock near by, and

⁵ This word may be the informant's equivalent for "arrowhead" of his fore-fathers.

get up and dance. The bullet was a straw charged with medicine. Not only did the doctors try to shoot each other down by means of their medicine, but they used to display the strength of it by cleaving rocks. When the trial was over, all the doctors would mingle and dance together.

The bullets were made as follows: A hole was dug in the ground about a foot deep and "medicine" put in; burning coals were added. Straw was piled in, then an oak-ball held at the end of a stick was turned over the flames. It seems that all the straw was not reduced to embers, but rose with the flame. Some escaped and flew away on the wind; some stuck on the oak-ball. These latter straws were taken off the ball and used for shooting. They were sent out with the name of the person whose death was intended. The test of being a doctor was that he could stand the shooting while it would hurt a layman.

The same hole serving for the making of the magic bullets was also used in making a new doctor. Generally several men were initiated at the same time. They were told to lie on the ground, with their faces to the hole, for about half an hour. They would become drowsy. Then the older doctors put them on their feet, supporting them, and shook them. An old doctor, while standing with the body of the neophyte laid against his, chest to chest, would cause him to extend his arm in a manner that would free his lungs. The informant, while demonstrating the performance, emitted a sigh characteristic of the neophyte when undergoing this treatment. The performance was repeated by the old doctor with the neophyte's back resting against his chest. When this was over, these neophytes were left to lie, apparently senseless, the whole night; they were wakened about two o'clock in the morning and danced from then on till daylight.

Dancing was resumed late in the morning and went on till early afternoon. The neophytes were then allowed to eat a little soup. In the evening a huge fire was built and dancing began again which was kept until the morning. This lasted four nights and days. In the night, dancing stopped before midnight and started again very early in the morning. The schedule ran thus:

11 a.m. to 2 p.m.	dancing
2 p.m. to 5 p.m.	rest
5 p.m. to 11 p.m.	dancing
11 p.m. to 2 a.m.	rest
2 a.m. to 5 a.m.	dancing
5 a.m. to 11 a.m.	rest

The informant adds that they danced shorter hours in daytime.

The dance began in the morning and ended in the morning. On the morning of the last day, at daybreak, the doctors bathed in cold water in some creek nearby. Then they danced for the last time. Following the last dance food was brought to them. For four days they had been forbidden to touch salt and meat, but now they could partake of any kind of food.

The people who had gone to witness the ceremony stayed long after it was over. The occasion was one for much rejoicing. Games were played and races run for eight or ten days.

In this dance no drum was used. While performing it, the doctors wore their feather cloaks, carried bows and arrows, and decorated their bodies with paint. The men of each district had a certain color or combination of colors that served to identify them. The face was painted, then the chest "straight down"; the leg also, from below the knee to the ankle.

The motions of the dance were rather complicated; each dancer raised his foot, then put it down; he stopped to look around, then went over and over again through the same motions.

LOLE

In this dance there was a man who acted as choragus or director of the evolutions. Only women took part. When he yelled, all the women would turn their backs to the fire. He would yell again and they would resume their first position facing the fire. They would take a rest and dance again, the performance continuing with alternate periods of rest and dancing till the morning. Only the man yelled. The only element of variety lay in the songs, a different song being used for each period.

The headdress used in this dance consists, in recent years, of a band of yellowhammer feathers laid across the forehead. The hair is worn loose. There is no special attire; everyday clothes are worn. The lole must be danced barefooted. The dancers, however, wear ornaments of shells and beads that vary according to the wealth of the owner and therefore indicate rank.

Any woman may take part in the lole. Usually it is performed in the spring or in midsummer. It lasts four days and no meat or salt may be touched while it is in progress. The singers used clapping sticks of elderwood.

The choragus wore a feather cloak of hawk feathers or the wing feathers of a crow, and on his head a band of twisted grass. He was a head doctor and one who could act as leader in all dances. There must be a leader in all dances. If the man called upon to act as head singer should refuse to come, the people who wanted to hold the dance would kill him.

TURA

In this dance, as in the lole, a fire in the center was one of the prerequisites. The tura was danced by both sexes together, the men in the inside circle, near the fire, the women in the outside circle away from the fire. The men jumped around and exerted themselves strenuously. The women danced more quietly, just swaying their bodies. A chorus of about eight or ten men belonged to the dance. They hummed, keeping time with a drum.

The tura, like the lole, was danced in a spirit of fun and merriment.

The headdress of the dancers consisted of a feather stuck upright over the head, and of a band, seki, passing over the head with "horns" attached to each side. These horns were made of small forked sticks, with two branches and a shell or a feather at the end of each branch. The dancers wore a feather-cloak, called talik, which covered their backs and was tied around the waist. Wing feathers of the hawk or the crow entered into its make-up. Tail feathers of the yellowhammer were used on the headband. A black and white ring painted (?) around the leg of the dancer, below the knee, completed his decoration.

Women dancers wore their everyday clothes and a band of beads around the head. They held a rope or band made of duck feathers, which they carried before them in both hands. The dancing motion consisted in moving their heads from side to side, their hands following the same motion. They raised themselves on their toes, then let their heels fall on the ground again without changing place, and keeping their faces to the fire. Each dance lasted about twenty minutes, and each song was "danced" four times. Then they rested, thinking, as they sat, of the next song.

This dance must never be witnessed by a menstruating woman; should one be found in the sweat-house where the dance was held, the head dancer would detail a man in the crowd to see that she was turned out.

The singers carried clapping-sticks in their hands and stood in front of the drum facing the fire. There was only one man kicker of the drum.

No meat, grease, or salt might be eaten by the participants. On the morning after the fourth night they marched singing toward the water to wash themselves. They doffed their dancing apparel and other paraphernalia, one of the men taking charge of these. Should any of the clapping-sticks have been broken in two, they carefully kept the two parts. If the broken sticks happened to be in sufficient quantity, they were disposed of either by burying them in the mud or by throwing them into a running stream.

K'AM'IN

This, like the tura, is a pleasure dance and was performed by both men and women together, with only one male singer. Many people always take part in it, men and women always in equal numbers. The men wear bands of yellowhammer feathers on their forehead, and feather cloaks. Their headdresses are provided with horns as in the tura, these horns being topped with a white feather of the wing of a bird.

This dance like all the others is performed around a fire. The men dance close to the fire, the women in a circle behind the men, all facing the fire. All dance silently until the choragus makes a motion pointing up in the air: then all shout and stop suddenly. The choragus uses a whistle made of the bone of a bird. The singers use clapping-sticks. The same song is repeated throughout the dance.

SHAMANISM

The Maidu recognized two ways of becoming a shaman or "doctor," as the informant expressed it. Self-initiation was one way: a young man went out into the woods and had dreams. The other way was through initiation by another doctor.

The novice had to observe certain taboos. He must abstain from salt, meat, and grease for one year and during that time eat nothing but acorn soup. Any breach of this rule unfitted him for his vocation. A true doctor, states the informant, never ate salt or meat. He ate "medicine" and nothing else for four days previous to undertaking to cure a sick person. Asked what he meant by medicine, the informant said that it consisted of herbs, but could not describe them

nor give their names. Eating anything on the part of the shaman would interfere with the cure. The sick man's relatives also had to observe the salt and meat taboo for a period of four days.

The boy's father paid for his training. The fee was very high. In former times it used to be paid in shell-money. Today legal tender is used. The ordinary fee is about \$200.

When a man sought this vocation through self-initiation, he had to fast every day till noon. While out in the woods he would look for the thing that would teach him. That thing was a devil of some sort that roamed through the woods. He did not see the thing, only heard it. Then he would know what herbs to cull. The name of that devil was given by the informant as 'us, which he translated as "spirit." A doctor sought dreams but he never told any one about his dreams.

CURING BY THE HIWE DANCE

When a man was sick a doctor was called in, and a sweat-house erected for the occasion. Most of the healing ceremony, however, took place outside of the sweat-house. A fire was built away from it; between it and the sweat-house ranged themselves, in a line from the fire to the door, the drummer with his drum, a chorus of singers, and a platoon of dancers.

The dance now given was the same as the hiwe dance. In fact the purpose of the hiwe dance, the informant states, was healing.

The paraphernalia used in the hiwe are about the same as for the tura, consisting of a head-feather stuck upright at the back of the head and a band of feather-work; but there are no horns on the band. The dancers bedaub their faces and arms and the upper part of their bodies with acorn soup. Over this preparation they shake down-feathers which adhere when the sticky liquid dries. The dancers carry long sticks of elderwood in their right hands.

The dancers never move away from the drum and keep their faces to the fire. The singers sit with their backs to the fire.

During the first four dances two women are appointed to burn seeds (siwi). One stands by the post on the right hand coming in, the other by the post on the right hand going out. The seeds are burned to ward off evil. After the fourth dance the sick people are brought in.

The patient is made to lie over the drum, on his stomach, his head to the west. Then the doctor lays hold of his head and turns him

around in a circle four times, the sick man finding himself after the last turn with his head to the south, his feet to the north. The doctor or head dancer again chews some medicine, spits it in his hand, and proceeds to press the patient's body from head to feet, blowing medicine on him all the while. He does this on one side first; then he begins on the other side. This is repeated four times.

At this point the members of the dancing party take the feathers off their heads, each man giving his feather to the doctor, who is busy "pressing" the sick man. The doctor takes the bunch of feathers, and makes a sweeping motion with it over his patient's body. At the same time all the men strike their chests and in a whisper say, "gone to the north."

The feathers are handed back to their owners, who dance again till the healing ceremony is over.

The sick man's relatives have to abstain from eating salt and meat while he is being treated.

Many people may be treated on the same day.

MEDICINE AND DISEASE

A genuine doctor, said the informant, treated his patients by sucking the blood out. He also gave medicine by the basketful and always hot. That medicine was a decoction of native herbs. The doctor had to take his medicine in the presence of the patient to ward off the suspicion of poison. The disease came out with the blood. The doctor spat it out in a hole dug in the ground and afterwards covered it.

What the fee for medical services was has not been ascertained. Nothing was charged until the patient got well. In case of death no fee could be charged.

The most common ailments that seem to have afflicted the Maidu and caused them to seek relief in medico-religious treatment were the following: fracture, knife cuts, hemoptysis, headache, rheumatisms, diarrhoea, constipation, gonorrhoea. The informant was not able to make any distinction between syphilis and gonorrhoea. In fact he did not recognize the symptoms of syphilis when described to him. He states that venereal diseases were unknown among the Maidu before the arrival of the whites. The treatment of gonorrhoea consisted in drinking medicine that increased the flow of urine.

Rheumatism, mēnus, was treated by steaming in the sweat-house in the evening. The sweat-house consisted of a willow frame over which was stretched a rabbit-skin blanket. Steam was produced by throwing water on hot stones. The patient was made to stay in the sweat-house till he perspired freely. In addition, quartz rock was pounded fine and cooked with medicinal herbs and water in a basket. Hot stones were dropped in the basket; steam rose, and the patient inhaled till he could stand it no longer. Should the treatment have no effect, the patient was made to lie on hot stones and the doctors would massage him, turning him over on all sides. Next morning before daylight he took a plunge in cold water. Doctors always operated between evening and morning, i.e., during the night.

Headaches were cured by the smell of certain aromatic weeds, among them a root, the size of a man's wrist, called kūia, which the informant could not further describe.

Hemoptysis was said to yield to internal treatment. The patient drank a medicine, the name of which could not be obtained.

For diarrhoea, piteepe'e, they took sweet manzanita flour, made of manzanita (*koto*) berries pounded fine.

A bitter root, the size of a man's wrist, was used in cases of constipation. The name for constipation was piskatcik.

Fractures were treated by bandaging. A certain medicine, of the nature of an unguent, called tupunim wehe, was also used.

Other ailments were chills, waku'o', fever, pidep, paralysis, lōtōpe. These were treated by steaming in the sweat-house.

MAGIC

When a tree had been struck by lightning they believed that a hair was to be found there which nobody but a doctor could find. The doctor kept the hair and later, as there was need, would burn it to cause rain. Only a doctor could safely approach a tree that had been struck by lightning.

When a man had wooed a girl for a certain length of time and she had accepted his advances, so that he had spent money on her, should she afterward refuse to marry him the man was likely to go to a doctor to have her poisoned by magic.



POMO DOCTORS AND POISONERS

BY

L. S. FREELAND



POMO DOCTORS AND POISONERS¹

L. S. FREELAND

The Pomo are one of the tribes possessing the Secret Society or Kuksu Cult of Central California, but unlike the Maidu, the Miwok, and their Yuki neighbors to the north, they preserve sharply the distinction between priest and ceremonial activities on the one hand, and the medicine man on the other. Certain quite special cases of illness, including the faintness which comes on at a ceremony as a result of breaking taboos, may be treated by priests, but healing is, in the main, the province of men who practice individually, not even forming associations among themselves, have no connection with ceremonies, and make no public shows of power of any kind. Another striking difference is the subordinate place of the guardian spirit in Pomo practice. The most important class of doctors lacks the feature entirely. Their power resides in a bundle or "outfit," in ritual, in potent objects and processes, and in the help of the six deities of the secret society. Poisoners call on the spirits of the poisons that they use, but with no idea of any individual claim. Only the sucking doctor undergoes a visionary experience and forms connections with a spirit who in some degree acts to him as manitu.

DOCTORS

The doctors were of two types (if we disregard for the moment the Ghost Dance healer), namely: the *q'ɔ'əbakiya'lxale* (performer for somebody poisoned) called in English by the Indians "outfit doctor" or "singing doctor;" and the *maðu*, the "sucking" or "dream" doctor. One man might be both, but the methods of healing were distinct as well as the requirements for reaching the position. Roughly speaking, we may say that becoming a *q'ɔ'əbakiya'lxale* depended on one's family or connections, and practicing as one depended on the possession of the proper equipment and knowledge of its use, while in the case of the *maðu* such matter-of-fact considerations played no part. The essential

¹ The following sketch is based entirely on information and experiences related by William Benson or *yalgalanl* (Wampum pursuer), a half-breed Eastern Pomo of Lakeport and Yokiah rancheria. He is not himself a doctor, but has known a number and witnessed many cases of healing.

thing was to receive from Marumda, the creator, through some mystical experience, power in one's own person to perceive the nature of disease and heal it. The material means used were slight, the repertory of songs small. The institution of q'ɔ'əbakiya'lxałe is more characteristically Pomo; like other professions among these Indians, it was regarded, in a loose sort of way, as hereditary in families, a man passing on his title to his son or sister's son or a protégé, educating the boy from childhood and giving up to him his own equipment when the pupil reached maturity. The mađu, on the other hand, shows less differentiation from the type of doctors of surrounding regions. The dream or vision as a source of power associates him at once with the shaman of the Maidu or Yuki. Often, too, the dream is of a divine messenger, a being human, not animal, in form,² to whom prayers are later directed, but the conception of guardian spirit seems not sufficiently marked to justify the use of the term shaman.

The mađu were less numerous than the others, numbering only one to two or three villages, while the q'ɔ'əbakiya'lxałe might be as many as three in a village. It was the latter, however, who commanded the larger fee. His cures were longer and the work more arduous, often requiring the service of some assistant, but he seems by and large to have been a person of more moment in the community as well.

Since neither kind of doctor formed a definite group or fraternity of any kind, we have nothing in the way of initiation or joint effort to educate beginners.

Of late years, since the introduction of the maru cult, the Pomo version of the Ghost Dance religion, around Middleton, Sulphur Bank, and Manchester, the maru priests have practiced as doctors. The informant described their method as "a sort of faith healing." They make no diagnosis of disease, but treat all alike with a single set of prayers which they have dreamed, addressed to Marumda under their own name of gaidu'yiyal, creator of the earth. They do not practice bleeding or sucking, but perform with elaborate motions, accompanying with cocoon rattles and split sticks the song which they sing to gaidu'yiyal and spirits which they see in dreams. The cure is ended with a big feast given by the family. The maru do not fast. They sometimes charge five or ten dollars. By Indians of the old school, they evidently are not considered a very reputable crew.

² The conception of the animal as personal guardian spirit seems quite foreign to Pomo thought. No case was given of a doctor who possessed one. Even the bear doctors or rather bear priests (for since they have no connection with the art of healing and do form a part of ceremonies they are more priests than doctors) do not include the bear among the various spirits to whom they make offerings, and do not seem to establish relations in any way with the animal spirit they impersonate.

"OUTFIT" DOCTORS

The apprenticeship of the *q'ɔ'əbakiya'lxałe* begins in childhood. It is necessary for him to learn the detail of all the treatments by going with his teacher and watching him. He must learn as many as possible of the songs and where the best herbs grow in the mountains. When he is older, he is promoted to assistant. When the boy is finally considered capable of practicing himself, the old man gives up his outfit to him, though still watching for a while to see that all goes well.

It was customary for a man to choose his son or sister's son to train in this way, but it was not obligatory. Tony Mat'a'k was not related to the doctors from whom he learned, and a case is reported by Mr. Gifford³ of a man who would not teach his son to be a doctor because boys like to eat and he was afraid that his son might neglect the taboos and die.

In the old days the outfit of the *q'ɔ'əbakiya'lxałe* was kept in a deerskin bag. This was made of a whole skin gathered tight at either end by a thong or rope passed through slits. A rope, the *ma'tka*, was also passed twice around the center after the bag was packed and rolled up, and the end of the *ma'tka* was tied across to form a handle. In this bag were kept all the articles the doctor wore and used in his activities.

1. The *waya'i*, or cocoon rattle, for beating time in singing.
2. *q'ɔ'əxaka*, obsidian blade three or four inches long like a spear head but without the heel. These are rubbed with herbs,—different ones according to the illness—heated, and pressed upon the painful parts while the doctor sings. Unlike the *maqu*'s blade they may be used repeatedly.
3. *q'ɔ'əxabę*, rocks of strange shapes taken from mineral springs. These are heated, rubbed with herbs on one end, and used for pressing the patient.
4. *γano'* (pin), a sharpened stick, usually mountain manzanita wood, one and a half to two feet long, and flat like a bow, covered with rattlesnake skin. This is used to pin the feather hats to the head net, but during his singing the doctor may take it and press his patient with the points. The pin is also described as being made of a sort of stone found in Robinson Creek, looking like granite but softer. This pin is worked down until it is only an inch in diameter and pointed at both ends. Tail feathers of the "emerald bird" are fastened on a string, drawn through a hole near one end of the pin and looped up with a little hoop

³ Unpublished notes.

of dogwood or oak to form a loose cluster, called *bite'rk* (feather hat). In this form the *yanɔ'* is not worn but heated, rubbed with herbs, and used for pressing.

5. *bo'lmaiki*, the head net.

6. *bitərk*, the feather hat. These feather hats were of many kinds, and used in ceremonial costumes as well as by the shamans. Several might be pinned on at once to give an especially startling effect. *Matsi'gini bitərk*, a big one of owl feathers; *qiya bitərk*, a big one of yellow hawk feathers; *gaci'lteia*, one made of emerald bird feathers. This type was used to wipe the hands when handling herbs, and, gaining in this way a value in healing, was also used to press upon a patient.

7. *behe'p'tsqwam*, breech clout of braided pepperwood (laurel). The strong odor is considered beneficial.

8. *q'ɔ'ɔ'daqɔn*, the stone pestle.

9. *xabe'care*, the stone mortar or bowl, used to grind up paints, or herbs and other medicines which the sick man will then drink directly from the bowl.

The doctor carries paint as well, which he uses in "frightening" cases. These paints are simply white clay; red, taken from a kind of rock; and black, from charcoal.

Various herbs and other substances are used as medicine in the different processes of healing. They are combined in different ways and either ground up to form the basis of drinks, chewed to a paste and rubbed on the pressing implements or on the body, or sometimes burned on the fire. The ingredients most frequently used are:

baq', the angelica root.

silo'ma, a similar root, taken from a plant described as three or four feet high with blue flowers.

x'ana, root of a plant with red bugle-shaped blossoms.

ti'xalep, eggs of the turtle not yet laid. The eggs are cooked with herbs and then chewed before using.

ciyobat'sum, bulb of a kind of wild onion.

quwa'cap, seeds of a small red pine. The cones, which are about six inches long, are burned and the seeds become black and have a curious odor. These are chewed with herbs to make medicine.

kere'sap, pine sugar.

xa's p'ui, rattlesnake grease.

xaibiteu, fragments from the hill of a certain ant.

Powdered elkhorn, too, may form part of these compounds, or powdered whalebone, or human bone left from the cremation of a person dead by violence.

The chief power of the q'ɔ'ɔbakiya'lxale, then, was concentrated in the outfit. It was kept when not in use close under the rafters of the house where no shadow of a profane person could fall upon it.

The outfit doctor must know many songs and prayers. One doctor is reported to have known eleven hundred. These songs and prayers may be recombined to suit different cases, but new ones, it is said, are never made. The healing songs for ordinary illness are addressed to Marumda, the creator, and perhaps to the other great spirits, but the group called "frightening" songs, used where a person is haunted by a ghost or monster, call on this unfriendly spirit to remove its curse. Songs to the monster, the bagi'l, exist in the North Pomo language, and their use is said to have been started by the Potter Valley people. Some of the prayers used are in the secret language used in ceremonies. In some treatments a doctor sings alone, in some, with assistants. Or assistants may sing while he performs.

Each morning when making medicine or commencing the treatment of the day, the outfit doctor recites an opening prayer to the six spirits of the secret society, associated with the six directions, as follows:

south	guksu matutsi	guksu initiate
east	marumda matutsi	marumda initiate
north	su'u'padax matutsi	whirlwind initiate
west	xa · matutsi	water initiate
sky	γali' matutsi	thunder initiate
earth	gai matutsi	earth initiate

Pointing with the new medicine upon which he is calling down power, he begins facing south calling on guksu, then turns in his counter-clockwise circle east for Marumda, the creator, north for the whirlwind spirit, west for the water spirit; then swings back counter-clockwise and addresses the thunder and earth spirits facing south. He scatters an offering of a few loose beads and bits of food prepared by the family of his patient.

The final prayer in a cure is called the *wina'gudərx*, like the last prayer of ceremonies. The doctor sits, still wearing his feather hat and holding his rattle, and, speaking, makes his last request to the spirits to heal. Then he packs his outfit, and leaving with the relatives herbs and directions for washing the patient with them, he takes his leave.

The q'ə'əbakiya'lxale is called upon for any kind of illness. If it continues he stays for four days, only leaving if he must to get more herbs. After the four days he may go but the outfit is left behind. Usually after an eight day interval he returns and, repeating the same treatment or changing it at his discretion, he stays two days more. If the patient does not progress satisfactorily, a third visit may be made in two, four, or eight days. During the first visit a post is set up by the family and there the doctor's fee is collected, wampum and other goods to the value of fifty or a hundred dollars, it is said, and a robe worth sixty dollars, strung on the post or piled at the foot. If the doctor makes a third visit he may take some, perhaps eighty, beads (fifty cents), and with a prayer sacrifice them to the spirits, throwing them south, east, north, and west. But the payment for himself he does not touch until the outfit is removed from the place and the case closed.

As with the mađu, the family or interested friends may stay and watch the doctor's performances, but they should be careful to be "pure."

The commonest treatment of the outfit doctors in any case where there is localized pain is by pressure with some heated object which has been rubbed with healing herbs and seeds. These substances are used in various combinations according to the circumstances, chewed to a paste by the doctor and applied to the obsidian blades (q'ə'əxaka), the rocks (q'ə'əxabe), or the doctor's pin (q'ə'əγanə'). By pressing on the affected part the herbs are thought to be worked into the skin. Slight cuts, even, may be made and, after a little bleeding, powdered herbs rubbed in. Hot drinks are also given, decoctions of the herbs and seeds, with the turtle eggs and bits of elkhorn and whalebone, or human bone ground up together in the doctor's mortar. While performing these processes and preparing for them, the doctor sings certain songs. No assistants are needed.

A more elaborate treatment of this type is that of sweating a sick person on a bed of coals. In a hole a fire is made of dano'xayę, a variety of manzanita found in the mountains. In the coals are burned herbs with rattler or gopher-snake grease, and on top a bed is made of moist mountain bunch grass (bice'yatsa). The doctor, naked except for his feather hats, jumps in and rolls about to test the temperature. Four times he tests it, then the patient is laid upon it and sweated. Sometimes this is done twice during a four-day treatment. If the patient is very ill, salamanders whose abdomens have been slit and xa'ibitcu (the fragments of anthills), may be burned with the herbs. This is called the "salamander test." Its exact purpose is obscure.

Broken bones are set by the outfit doctors with elderwood, split into four, and the center removed so that the wood fits naturally. The limb is bound tightly with *mohe'* (hair of the cottontail), then the splint is adjusted, the whole bound with a *cit's* (rabbit skin blanket) and tied with tule fiber. No herbs are used. There are special prayers and songs.

If the illness is long, the patient fails to improve, and there are no definite pain symptoms to indicate the suitable treatment, the doctor begins to think the trouble must be of a different type than he had supposed, and due to the haunting of some spirit. He consults with the family to discover what the man had been doing at the time he first fell sick, whether he had been out at night when he might have seen a ghost, or whether he had visited the shore or perhaps some spring in the woods. So they form a guess as to the probable nature of the spirit. The doctor then prepares to test the patient by reproducing the vision as closely as he can. He may himself dress as a ghost, or may construct a model of a monster, the *bagi'l*, combining perhaps the traits of several animals that frequent such spots as the sick man has visited, sea-bird and snake, or beaver and lizard.⁴ A realistic setting for the *bagi'l* is devised as well, and the scene is suddenly revealed to the patient. If he reacts strongly, struggling and then fainting, the doctor regards his hypothesis as verified. Songs and prayers are begun at once to the ghost or monster to leave the patient in peace. Seeing a ghost is not an accident; a ghost always comes for some purpose—"nothing is nothing, and something makes something," as the informant expresses it—and urgent prayers may be required to get relief. The same may be said for the *bagi'l*, since the visits of this monster are a punishment for breaking taboos. Ordinary treatments are used to bring the patient out of the state of collapse which follows this ordeal. Then the doctor takes off his ghost costume or destroys the model before the patient's eyes to relieve his mind of fear. Recovery is said to be rapid.

SUCKING DOCTORS

The experience which brought to a man or woman the powers of a *mađu* did not ordinarily occur until middle age. There was no way of soliciting the dream or vision; it would come quite without warning, usually during illness. A being, human and speaking one's own language but a stranger, would appear and give the command. This being is a messenger from Marumda, and he may bid the dreamer obey on pain of death. He describes what to do and teaches songs to sing in

⁴ There seems to be no doubt that these various forms are all manifestations of the *bagi'l*, although her traditional animal form is snake and spotted fawn in one.

healing. The dream usually comes twice.⁵ Then the new mađu gets up. He finds a long stick (the mađu'xai) and with this starts out on a pilgrimage, following the route described in his dream. For two or three days he goes from house to house, singing. Wherever there is someone ill, he is asked in to treat him, and receives some wampum in exchange. If no one is ill, the people still tie a bit of wampum on his stick. Toward the end of this time the mađu begins to tell his dream. In this way all the village and perhaps neighboring ones as well come to know a man in the new rôle of doctor.

The dreams do not come again, and the mađu has no more intercourse with the visiting spirit and receives no more instructions. This being is conceived as still having some power and interest, indeed, since healing songs are addressed to him, but the address is vague and not by name, simply saying, as it were, "You who taught me to do this thing, to sing this, make this sick man well."

As we have seen, the q'ɔ'əbakiya'lxale has a complicated equipment and a great variety of treatments. The mađu besides his few songs has very little. The only herb he uses is angelica root, and his only tool is a very thin knife (dupa'xaka) about an inch long. These knives are used only once. They are made by the mađu, sometimes with a special song for doing it, from the more easily workable type of obsidian found in Cold Creek near Kelseyville. In the old days it is said the process was to cut with these knives and suck blood from the region of pain. Nowadays there is no bleeding, the cause of the disease is simply sucked out through the skin, not a foreign body but a blood clot or something looking like the core of a boil stained with blood. Only one actual case of sucking through the skin was described, however, as against several of blood-letting.

Treatment by a mađu is considered especially efficacious in "quick sickness" because of his special powers. Even when a q'ɔ'əbakiya'lxale is to treat a case later, a mađu may be called upon to diagnose it. Often as soon as he sees the patient he can tell the part affected because a cloud of steam seems to rise from there. If he is in doubt, the mađu first sings. Then by feeling, or by sucking on the skin, and tasting, he discovers the nature of the disease. He protects himself by chewing angelica root beforehand and rubbing it on his hands, sometimes on the patient as well. Then if he judges the trouble to be something that bleeding or sucking can help, he goes on with these treatments. The usual fee is eight hundred beads.

⁵ This seems to be the typical experience. They undoubtedly vary, however. A Pomo informant told Mr. Gifford of a man who saw fire spouting from the head of a horse. He swooned and remained unconscious several hours. When he woke it was gone. Through this event, he became a mađu.

There are many precautions that the outfit doctor must observe to insure his success or even safeguard his own life. He cannot of course "fix" beforehand, i.e., purify himself with fasting and prayer out in the woods somewhere, as a man would who was about to go on a journey or to gamble. But from the time he is called to a sick bed until eight days after leaving it he touches no meat, grease, or fish. And as it usually happens that one case follows close upon another he may go six months at a time without tasting these foods. The four sacred beasts he never eats at all. As a general rule, an outfit doctor's patient, too, must abstain from meat, fish, and grease during treatment and for eight days thereafter; but in case nourishment of this type is needed the fast is curtailed to four days following, and the doctor will say the prayers provided for this contingency. Sometimes a patient may touch no food or water in the daytime during a cure. Doctors also keep themselves pure from contact with blood by never killing anything. Even the grease they use is obtained from the bodies of snakes slit while still alive. Roasting salamanders in the salamander test is the only exception. This purity of patient and doctor must be carefully guarded from contamination. No one who is not purified should ever let his shadow fall on a doctor or patient or on the outfit, nor pass to windward of them. No woman in her menses should come to a cure at all. The effect is to contaminate the doctor, but he may purify himself again with bay leaves. It is worse for the patient. The doctor always can tell. The informant himself has seen a doctor whose patient had been doing well and suddenly looked very ill turn to those watching and beg that, to save the sick man's life, the woman there who was responsible would leave.

The madu are less scrupulous. They continue their fast for several days after treating a patient, but convenience determines the number. If they finish a case on a Friday, the days of fasting will hardly be more than two, since they break the fast for a week-end feast. They do not enjoin fasting on their patients.

Sometimes a doctor would make vows to the spirits for a sick man which the latter must fulfill on his recovery. These were usually feats to be performed at the next Ghost Ceremony wherever that should be given. It might be to make an appearance as a ghost four times in a day, to make four entrances to the dance house through the smoke hole, or perhaps to climb Uncle Sam mountain at daybreak and, having built a watch fire there and three more on the way down, return to the dance house for the evening ceremony.

ILLUSTRATIVE CASES

These are some of the accounts given us by the informant of treatments he had seen and doctors he had known.

“FRIGHTENING” CASES

Case 1. There was a man that an outfit doctor was taking care of, and he didn't seem to get any better. His people remembered that the day he got sick he had been hunting in the mountains. So the doctor thought he might have seen a water monster at a spring. He made a model. It took him all day to make it. It was like a great snake, six feet long and a foot wide. The frame was of sticks; this was covered with tule, and painted black and white and red, and medicine put on it, ya'na and eiyō'bat'sum, and blood from the doctor. The doctors say, “One blood affects another.” The eyes were pieces of abalone shell, and a piece was hanging from the mouth to catch the firelight and glitter when the monster moved. There were yellow flicker feathers on its head. Then they threw a cover over the patient so he couldn't see and they dug a hole there in the house, and filled it with tule, standing up, and put water so it looked like a spring. And they brought the monster in and laid it through the center with its head raised. They had the head fastened to a string so it could be moved. The doctor was hidden at one side. He held one end of the string and pulled on it. The other end was tied to a green stick stuck upright in the ground on the other side of the monster. It bent over when the doctor pulled and then sprang back, and the head swung back and forth.

Then his friends came around the man who was sick and took off the cover. When he saw all this he fought so that six people had to hold him down, though before he had been almost too weak to move. When he was tired out he fainted. Then the doctor sweated him, gave him hot drinks, and bathed him with herbs. By and by he was better, and the doctor went and sat by him and he told all the story of his fright. He had been in the mountains and about dusk he was thirsty and went to a spring for water. But before he started to drink, he saw the monster and turned and ran. Before he reached the bottom of the hill he felt queer. He knew what must have happened. Ever since then the monster had been haunting him. He kept hearing it outside the house. Every time he opened his mouth or batted his eyes, it flashed just like fire.

They sang songs to the bagi'l and from that time the man got better.

Case 2. There was a woman in Yokaiya that had a fright. She went out just for a minute at night and when she came back she fainted. For twenty minutes she didn't breathe at all. Co'yogo (Fred Hogan) was there. He was a q'ɔ'əbakiya'lxale. He had been brought up by hu'ilu, his mother's brother, and had his outfit from him. He thought maybe the woman had seen a ghost. Usually they dress up for a ghost with black and white paint, and maybe green leaves, but he just fixed up in some woman's clothes. He got his father, who was there, to sing for him, and to hold the woman up and prop her eyes open as he came in. Then her back went off like the crack of a gun and she began to shake all over. Fred performed a little, and then he said, "You heat some water and we'll wash her face. She'll get over that shock soon." He put medicine in the water and washed her face and arms and hands. He took her hands and feet and pulled them and stroked them. He pulled her fingers and toes and her legs and arms and stroked her back, and then he stretched her out and left her. He sang prayer songs. Next day she was all right.

CASES ATTENDED BY MADUS

Case 3. When I was a little boy I had a madu take care of me. I had a pain in my head and a madu came and sang over me. He sang and then sucked and sang and sucked some more. He cut four places in my head. Finally he sucked out a clot of blood like a little marble.

Case 4. I had the grippe in '82. I was staying near Kelseyville. It came on at night, and in the morning I couldn't get up. They sent for a woman madu who was there. She felt my head and she said, "Your blood is boiling. Turn on your side." Then she cut my cheek right in front of my ear. The blood poured out, and she sucked it. Then she made a fresh cut and sucked some more. She took about a half-gallon milk-pail full. I didn't feel anything until about her third mouthful, then I began to feel better on that side. I turned over and she did the same on the other side. Then she went away. She said, "Don't get up; you might take cold. Eat something tonight if you feel better." At night I ate. Next day I got up. I was all right except for weakness from losing the blood. The madu told me the blood was so hot from the poison in it that it scalded her tongue. She didn't sing at all in this treatment.

Case 5. There was a man up there who had the flu two years ago in March. He looked at his face and he could see it turning black. He sent his wife for a madu name Pete Maria'n. Pete came that night.

He cut Sam and sucked, and after just a few mouthfuls he felt better. Pete just sucked, nothing else. He knew as soon as he went in it could be helped by sucking.

Case 6. Pete Maria'n did other kinds of cures too. He treated one case of broken bones with a little coal oil. He sang a little and the man got well. Pete said the bones weren't broken.

Case 7. Captain Bill was a q'o'obakiya'lxale in Yokaiya. He cured a man once who had been given up by a white doctor. As soon as he was called and had performed a little, the man felt better. But he was on a white man's ranch where people weren't careful. Captain Bill was as careful as he could be there. He had the man go without food and water until after sundown during the cure, and without meat until four days afterward. But he said that in three days when the man was able to move he must go back to the Rancheria. He sang prayers and songs, saying this.

Tony Mata'k is a mađu and a q'o'obakiya'lxale both. He's a pretty good doctor because he's so careful. He is careful not to let any one get between him and the sun when he's fixed, and everything like that. He never lost a case. He belongs to the tađu tribe above Potter Valley, but he was raised by a white man, a merchant in Santa Rosa. It was in Upper Lake he learned to be a q'o'obakiya'lxale. Nobody taught him, but he managed to learn. There were several good outfit doctors in Upper Lake, old ones, and they are always glad to have boys to help them, to hang around and bring in herbs from the hills, and help with treatments when they know enough. So Tony learned where to get all the things and how to make medicines. He learned eleven hundred songs: five hundred doctor songs and six hundred "frightening" songs. His outfit was given to him later by an old man.

Case 8. He could suck right through the skin without cutting. There were some white boys went hunting up there. One of them got hit in the hand. The shot went right up through his hand and into his wrist. He didn't know what to do and somebody told him, "There's an Indian doctor lives about a mile down there." So the white boy came to Tony and he sucked the shot out right above the wrist. He stills shows the shot to prove it.

Case 9. I got Tony to come and see my brother-in-law before he died. The white doctor had been treating him for cancer but he got worse and worse. One day I met Tony and asked him to come. He said his outfit was up in Potter Valley. But I was in my car, so he got in and I ran him up there. He got the suitcase that he kept his outfit in, and

we came right back to my brother-in-law. Tony prayed and sang before he opened the suitcase. Then he took out his rattle and some herbs, and sang and prayed some more while he chewed the medicine and rubbed it on his hands. He mixed some with water in a teacup and heated it by the fire. He drank some and then gave it to my brother-in-law. Then he sucked to find out where the trouble was: He sucked on the naked body, and found a sore in the bottom of the stomach. He could make him feel better, Tony said, but he couldn't cure him. If he had come sooner he could have done it, but it was too late. He didn't know what it was that had made the cancer.

WITCHCRAFT

Among the Pomo, doctors seem never to be regarded as malevolent. No suspicion attached to the doctor if a patient failed to do well, and for his personal safety to be endangered by the death of someone in his care seems to have been unheard of. Several failures would hurt his reputation for skill, of course, but nothing more. The doctor was even paid just the same when a patient died, but often he would return the money. A doctor seems really to have been a responsible guardian of the health of his people, going as a matter of course whenever he was called, unless another case detained him, even though it meant living indefinitely without meat, and black art was not imputed to him.⁶

Poisoning was known, however, and the man who practiced it was called q'ɔ̃gauk, "poison man."

The art of poisoning, while far less technical and less varied than that of healing, was still difficult, and very few people ever knew enough about it to practice it at all. Only occasionally a boy would be taught by an uncle or grandfather the lore that had been handed down to him, the processes and poison songs for each, together perhaps with additional devices of his own worked out according to the logic of magic and tested by experience. And so the knowledge was kept alive.

A man who wished to use poison on another must first work a whole season, from spring to fall, gathering all sorts of poisoning plants as they ripen. He takes poison from spiders and tarantulas, venom from snakes, red ant poison, and bee stings. These things he keeps in a hiding place out in the hills, each in a separate bag. When he has all he needs, he takes with him to the woods four men whom he can trust, and there he makes magic against his enemy, gupu'ki, which they translate "curse."

⁶ The customs of white doctors in looking a patient over and then leaving him obviously seem very careless and irresponsible to the informant. A q'ɔ̃obakiyalxale stays by his patient.

Four days the five men stay in the woods, fasting. They touch no meat. During the day they eat nothing; after dark, some vegetable food like pinole mush. The q'ɔ'ɔgauk begins by making his poison. While the ingredients were separate they could be handled safely, but once brought together they are dangerous. So he grinds them with a pestle in a stone bowl, and does not touch them with his hands. They form a paste, moistened with their own juices. For every step there is a prayer to be made to the spirits of the poisons. When he is through, the q'ɔ'ɔgauk must wash himself carefully, lest he should have been accidentally splattered with poison, and rub his body with a paste made of four healing medicines, kere'sap, baqq', quwa'cap, and ti'xalep. The men who are to help also rub themselves with this paste as a protection and sing as he tells them to.

Then, with a little forked stick, a model of a man is made. Something of the victim should be built into it: a hair, nailparing, perhaps a bit of dance costume.⁷ Sometimes such a scrap is included in the poison, too. Then the figure is touched with some of the new-made poison and the men enact the death. They dig a grave, cremate the figure, bury its ashes, and hold a crying.

After that the four men each take some poison wrapped in leaves or tied upon a stick and return to the village, usually by different routes. Sometimes the q'ɔ'ɔgauk will remain behind so that he may not be suspected. It may be they have timed the return for a feast day so that people will be gathered together and one of the poisoners may touch his man in the crowd, but they never get there till after sundown for fear of shadows. For each must protect this bit of poison from any association with people who are not pure, and so must keep to the sun side and windward of everyone. Besides, his own shadow is dangerous to others because of the poison, especially to children. Children are very easily poisoned, they say. That is why Pomo mothers always call their children close at twilight when a q'ɔ'ɔgauk may be about.

Or perhaps it is not a feast day and the q'ɔ'ɔgauk himself has kept some poison in case his helpers fail. He comes back to the village as though from a journey. People will gather around to question him and that will give him a chance to touch the man he wants. But if any friend of his comes out who is used to touching him and clapping him on the shoulder, he must be careful. So he will drop a hint. He will

⁷ The Pomo have not the belief in the use of a personal name as a source of power over a man.

say, "Don't touch me, I'm all fixed for gambling."⁸ And the friend will keep away.

"I remember," said our informant, "a long time ago an old man told me how he had made poison. He said he had made poison twice. He said it was not easy to make poison. 'Don't let any one tell you it's easy to make poison,' he said, 'it's very hard; it takes a long time.' He told me how he had made poison the second time, the last time he made it. Somebody had poisoned his daughter. Now he made up his mind that he would take his revenge. He thought he knew what man had poisoned her and he made up his mind that he would make poison. 'It takes a long time,' he told me. 'It takes a whole spring. You have to gather a great many plants. You know they don't all bloom at once; they come at different times. And it's just some part of the plant that's good for poison; maybe the leaf, maybe the flower, maybe the seed, and there's a certain time when that part of the plant is just right to make poison and you've got to get it just at that time. Then you must collect a lot of bugs, all sorts of poisonous bugs, scorpions, and stings from bees, snakes, too. All the animals that have got poison and all the plants that have got poison. And it's hard because all this time you must eat very little and not go near women, especially women that have their menses. That is so you will be pure, you know!'

"Then when he had everything ready he made poison with all that. You must use it pretty soon while it's still strong. So he took the poison and touched that man with it. But you can't stop then. A man must help the poison, he told me. He has to keep it up. For one thing, you can make an arrow of poison oak and a bow of poison oak, too, and in the morning you go and shoot the arrow over the man's house. And if the arrow sticks in the roof, all the better. Well, that man began to get sick. He got sicker and sicker.

"But you must keep up helping the poison. So he makes another arrow of poison oak and when he goes by the house he kind of slips it under the house, or in the grass in front of the door where the fellow is sure to step over it. That man got more and more sick all the time. He couldn't leave his bed. Well, he died.

"So then the poisoner was through. He went to the river and washed himself carefully. He rubbed his arms and his chest, all his body he rubbed over with different herbs so as to be all rid of the poison.

"Well, now he was satisfied. Now he ate.

⁸ This expression being derived from the fact that gambling is the most usual thing that one purifies oneself for, and one that requires no embarrassing explanations.

"But it's hard work, he told me, it's hard work to make poison and it takes a long time.

"They've poisoned lots of people like that, though. That's why an Indian must be good. He must not make trouble. He must welcome people and be friendly. He must be careful what he says. He must not be foolish and say anything he thinks. Because then people will dislike him. If there's any trouble they'll suspect him. They'll get rid of him. It makes no difference if he did it or not, the poison will kill him just the same. That's why it's hard to be a chief. A chief has got to be very careful because people notice him. He must welcome people. He must not make quarrels. He must never tell somebody to do something bad. If somebody insults him he mustn't resent it. Or people will get together and they will say, 'He is no good. Maybe his son will be better, or maybe his nephew will be better. We'll get rid of hin.' Oh, killing is easy, killing is easy. It's hard to keep life. They've killed lots of people like that."

DISEASE

From a study of the cases given, it becomes apparent that the Pomo classifies his disorders as those "from outside" and those "from inside." Those of the first sort are in the main the "frightening cases," those rooted in the fear which the sight of a ghost or monster rouses in the beholder, and they are treated by reproducing as nearly as possible the terrifying vision. This process of the doctor is explained as a device to identify the spirit, which may then be implored by prayers to desist from "haunting" the sick man. At the same time it is regarded as a cure in itself founded on quite conscious Pomo psychological theories. "Seeing a thing again takes it off your mind," it is said; and one Indian doctor asserted that he could cure all the people in the state insane hospital if he were allowed to treat them on this principle. This phenomenon of "haunting" seems then to be thought of now as a recurrence of terrifying mental images and now as objective appearances of a malevolent being. The implication of two theories of mental disease does not seem to suggest any inconsistency to the informant. Possibly this is simply an extreme example of the duality of practical and super-natural features characteristic of primitive medicine. It is possible, however, that the belief may have been influenced by the ideas of other peoples.

Illness from magic is also spoken of as "from outside." The death of small children, which they say can result from the proximity of an adult "fixed" for any undertaking, would illustrate this type, or the

illness of a child caused by the capture of a small bird by a larger one above the housetop. Also, probably we must include here illness as the result of breaking taboos, other than those punished by the haunting of the bagi'l, such as the taboos during a ceremony whose violation is supposed to bring about sudden fainting or blindness during the performance.

Then there is the wider field of disease "from inside," a condition where "poison" may permeate the blood of part or all of the body; or concentrate in internal "sores" or small masses of "ulcerated flesh," which are regarded as the active element in the disorder. This poison is, it seems, introduced into the body by actual contact of some kind, a bit of stick or gravel penetrating the skin, a bite of a snake or poisonous insect, or simply the touch of a powerful poison. "It stands to reason," says the informant, "that it gets into the blood by coming to the skin from outside. Cancer, now, I've always thought myself that must come from a spider bite. You look carefully at one that's quite small still and see if you don't think so." This generalization, however, is not found to cover all cases which are regarded as "from inside." To strains or colds and broken bones seems to be attributed an origin independent of poison, but whether again this may not be a departure from the orthodox theory it is difficult to say.



POMO LANDS ON CLEAR LAKE

BY

EDWARD WINSLOW GIFFORD



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INTRODUCTION

The data here presented were recorded in 1919 in an attempt to gather specific information concerning land tenure in central California. The thoroughness of American colonization has all but eliminated native knowledge of the matter. The aboriginal groups examined were the Eastern and Southeastern Pomo, living on the shores of Clear lake, Lake county. A discussion of (a) land ownership, (b) privileges connected with the products of the land and its adjacent waters, and (c) inheritance of tracts is presented under "Ownership of Lands."

Wokox, or Tom,¹ an aged shaman of Sulphur Bank and a native of the village of Elem, supplied the Southeastern Pomo data. Jim Pumpkin,² also a shaman, residing at the village of Danobidau (Napocal), near the town of Upper Lake, Lake county, supplied the information concerning the Eastern Pomo village of Cigom, of which he was once a resident.

The reader is referred to Map 1 in S. A. Barrett's paper on *The Ethno-geography of the Pomo and Neighboring Indians*³ for the general geographic setting of the villages discussed in this paper—Cigom, Elem, Kamdot, and Koi. These villages seem to have been the principal ones on the eastern shore of Clear lake. All other sites on Barrett's map, according to my informants, were subsidiary and temporary.

¹ Called Toto by the Eastern Pomo. This man is suffering from a defacing disease and constantly wears a handkerchief over his nose, which is evidently much affected. He was fifteen years old at the time of the Bloody Island massacre in 1850, which would make his age eighty-five at the time of interview. He stated that the information concerning lands and boundaries was taught him by his father when they were hunting together. His father died about 1880.

² Xehulum was the Pomo name given by this informant for himself. Xalilkunak was the Pomo name assigned to him by another Eastern Pomo informant named Charles Rakibone, or Caila. Jim Pumpkin was five years old at the time of the Bloody Island massacre, which would make his age seventy-five at the time of interview.

³ Present series, vi, 1908.

North of Cigom the next important seat of population was the Eastern Pomo village of Danoxa (see Barrett's map, also p. 188), on an eastern affluent of lower Scott creek some miles from the lake shore. On one occasion in the lifetime of my informant's father, hostilities against Danoxa were undertaken by Cigom, resulting in defeat for Cigom, whose war leader, Salki, was the only man slain in the encounter.

Nor were the relations of Cigom with the Southeastern Pomo of Elem always peaceful. During the informant's early youth the Cigomites made an unsuccessful land attack upon Elem or its mainland suburb. No Elemites were killed, but two Cigomites met untimely ends.

With the Long Valley Wintun, relations were always cordial so far as the informant knew. The same cordiality marked the relations of the Southeastern Pomo of Elem with the Long Valley Wintun. Between the three Southeastern Pomo villages of Elem, Koi, and Kamdot there was never war, so far as the informant knew.

STATUS OF THE LILEEK OR LAKE WAPPO

Both the Eastern Pomo informant and the Southeastern Pomo informant stated that the territory assigned to the Lileek Wappo on Barrett's map was occupied only intermittently by them and was really Pomo territory. The Eastern Pomo informant assigns the name Lileek to the Wappo of the vicinity of Healdsburg and says that they were but one of a number of foreign groups (Wappo, Miwok, and Wintun) who visited the Kabenapo (Pomo of the vicinity of Kelseyville) region to fish. He stated that the name of the chief of the Lileek people, who came to Daladano (a village near the western base of Mt. Kanaktai) to fish, was Menaki. He had never heard the name Mimak quoted by Barrett.⁴ The Southeastern Pomo informant said that the Lileek did not own the land assigned to them on Barrett's map. The eastern slopes of Mt. Kanaktai were the property of the Southeastern Pomo of the village of Kamdot, while the western slopes were claimed by the Eastern Pomo of Kelsey creek. The statements of these two informants support certain of the statements obtained by Barrett⁵ as to the lateness of the arrival of the Lileek in the territory in question and as to the intermittent character of their early occupancy.

⁴ Present series, vi, 276, note 342, 1908.

⁵ Present series, vi, 275, 1908.

The Lileek movement from the main Wappo area to the shore of Clear lake appears as a change of residence verging on permanence when the Americans appeared. It is perhaps illustrative of past movements which resulted in the separation of the Lake Miwok from the Coast Miwok, although in this case San Francisco bay may have exerted fully as magnetic an influence as Clear lake. Unquestionably the lake with its abundant fish and waterfowl was an attraction.

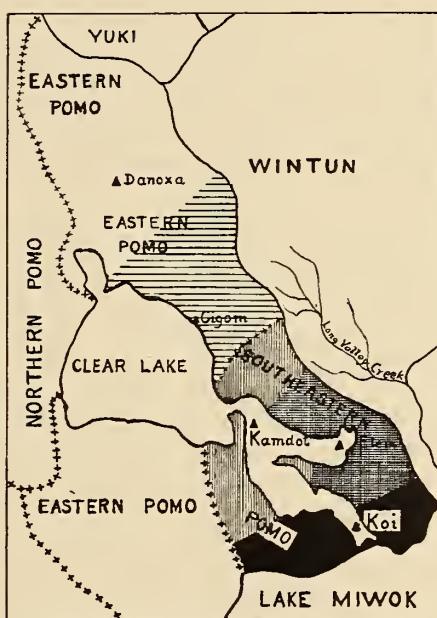


Fig. 1. Territories of the Pomo villages of Koi, Kamdot, Elem, and Cigom.

In the Cigom region the phenomenon which the Lileek present appears in a less advanced state. The Wintun of Long Valley were frequent and welcome visitors to the lake shore; moreover, they intermarried largely with the Cigomites. The stage seemed all set for the appearance of a Wintun colony on the lake shore. Then came the influx of Americans. It seems plausible, therefore, to regard the Lake Miwok, the Lileek Wappo, and the Long Valley Wintun as perhaps exemplifying the completed and antecedent stages of aboriginal colonization.

OWNERSHIP OF LANDS

The lands claimed by each village seem to have been definitely delimited. Our four villages shared between them all of the territory on the east side of the lake clear back to the Wintun boundary (see Barrett's map 1, also map accompanying this paper).

EASTERN POMO (CIGOM)

All lands, oak trees, grass seed places, and fishing rights were communal.⁶ The Long Valley Wintun habitually visited the Cigom region in spring to fish, asking permission of neither chief nor people. This seems to typify the custom around the lake, its waters being regarded as international. Hunting was also without restraint of any sort.

On the other hand, when the Eastern Pomo of Danoxa, or the Long Valley Wintun, wished to gather acorns or grass seed on Cigom territory, they were careful first to get permission from the Cigom chiefs. This courtesy was reciprocated.

Owing to the indubitable evidence of family ownership of lands among the Southeastern Pomo, I doubt the statements as to exclusively communal ownership among the Eastern Pomo. It seems possible that their lands have been so long in American hands that memory of private ownership has been effaced.

SOUTHEASTERN POMO

The information I obtained concerning land ownership among the Southeastern Pomo refers especially to the village of Elem. The informant stated that Koi and Kamdot held land in the same way.

A source of obsidian for arrow points was at Big Borax lake in Elem territory. From this supply the Long Valley Wintun and the Coyote Valley Miwok took freely. When the Long Valley Wintun fished near Elem, however, they asked permission of the Elem chiefs. Before the birth of the informant two wars with bow and arrow were fought between the Elemites and the Cache Creek Wintun because the latter fished and gathered acorns and grass seed in the Elem preserves without permission. In the first, one Cache Creek man, and in the second, two, were killed. The Wintun carried away their dead.

⁶ *Fide* Mollie Gunther, Charles Rakibone, Jim Pumpkin.

The informant knew of no poaching on Elem lands by Koi or Kamdot people, and of no wars between these three Southeastern Pomo villages. The waters of the lake near Elem were open for fishing to all Elemites.

Rattlesnake island, on which was located the village of Elem, was communal property, and any villager might help himself to the acorns or other products of the island; not so the mainland, however, which to the north, east, and south was claimed by Elem, but was not communal property. It was divided into nearly ninety named tracts, owned by the various families of Elem.

An Elemite could hunt deer on a fellow-villager's land, but could not take acorns. Hence, for deer-hunting the lands were communal, like the waters surrounding Elem. Nevertheless, deer-hunting labored under a decree of etiquette: it was unseemly to hunt deer on another's land during the acorn season without permission. Disregard of this decree was likely to result in the suspicion that the hunter had taken acorns belonging to another. This restriction had added force when the people of another village were concerned, for example, Koi. There was therefore little or no deer-hunting off one's own property during the acorn season. Thereafter, access to another's land was permitted. Even the Wintun were free to hunt on Pomo land and the Pomo had a reciprocal privilege. Deer and fish are spoken of as "wild" (i.e., apparently, moving freely, and not stationary like plants), and hence free to all.

In case of flagrant poaching on another's land the injured party, with the aid of fellow-villagers, fought the poachers, the chief of the outraged party looking on without participating, but ordering his people to stop when he considered that the fighting had proceeded far enough. However, as the valor of the Elemites was largely tempered by discretion, fighting was rare. If an Elem man discovered a fellow-villager stealing acorns, he told him to cease. He did not go to the chief about it. If the poacher were a Koi man, the owner, to avoid a fight, would shout from a distance: "That is not good. Stop that."

Every Elem family possessed one or more tracts of land, invariably one with a lake frontage and sometimes one in the interior in addition. Rocks, creeks, trees, and other topographic features served as boundary marks. An example of such a boundary is High valley or Stubb's creek (called Kapidai in Pomo) debouching on the north shore of East lake. It separates a tract named Kowa belonging to the informant and one named Bukapowi belonging to Gueibuk, the

informant's chief and mother's brother. Gucibuk's tract was to the west, the informant's to the east. The creek belonged to neither, being communal property in which all Elemites might fish; also people of other stocks.

The informant knew of no myth or tradition relative to the original allotment of tracts. The extent of the various family holdings was undoubtedly exaggerated by the informant, probably not intentionally, but through ignorance of the true length of an English mile. His own property on the east side of High valley creek, he said, had a width of one and one-half miles and ran back three or four miles into High valley. Many family tracts, he said, were a mile wide. But he lists twenty-two tracts, from High valley creek around to the present village of Behepkobel, all fronting on the lake in an aggregate shore line of four or five miles.

The owners of a single tract might range as high as fifteen, all of one family. The term for a tract is *ko*; *my land* is *wiko*. Tracts which became ownerless through all claimants dying were called *ko kina*, *wild land*, and were regarded as communal, all Elemites having the right to gather acorns on them.

The data regarding the ownership of tracts are not altogether clear, but it appears that they normally passed from father to offspring, which would mean that unless the tracts were subdivided they would be jointly owned by a man and his siblings, and later by the offspring of the group of siblings. The land of the informant's father was at the site of Jake Stubb's ranch. Only members of the informant's "family" might gather acorns there. At the present time, the informant has two parallel cousins whom he calls brothers. One, Jake or Dupesauwai, his father's brother's son, is joint owner in the various family tracts. The other, Frank Knight or Talakteauwai, his mother's younger sister's son by a Kamdot man, resides in Big valley (vicinity of Kelseyville). His paternity seems to eliminate him as a holder of Elem tracts.

More than once the informant made the statement that the land was joint property of all the heirs although it was subdivided. In other words, each tract was regarded as family property which the family as a whole defended against aggressors; but in harvesting vegetable products each heir considered a certain portion of the tract as his.

The statements as to inheritance of land were contradictory. On one occasion the informant said that inheritance was through the father, which I believe is correct. Later he said it was through both the father and the mother, which statement he fortified by declaring that all of the land which belonged to his parents he now considered his. The tracts Kowa and Kokopidai (Elem tracts 15 and 16) on the north shore of East lake were given to him by his father, although the latter tract, the informant stated, was really the property of his (the informant's) paternal parallel cousin Jake, to whom it was given by the informant's father; in other words, the informant and Jake are joint owners. The tract Kommo.i (Elem tract 71), which the informant inherited from his mother, was obtained by her from her father Wesli, because, as the informant stated, she was his only living child. Had there been a male child surviving, he would have inherited it.⁷ The informant seemed to regard his parallel cousin Jake as having equal rights with him in this tract.

An example of inheritance of land from the mother's brother was obtained. The cause of this transmission was that the owner lacked offspring and brothers; hence he transmitted the tract to his sister's offspring, three men and a woman. The tract was the hinterland tract Gegakat (see Elem tract 26); the owner was the chief Balakkak; his sister's children who inherited it were the three brothers Wilbak (a chief), Notau, Tsetsuk, and their sister Kasebi. The tract Gegakat was divided between them. It seems doubtful if Kasobi derived much benefit from her inheritance, for she married a Cigom chief and dwelt only intermittently and for brief periods at Elem.

The informant also stated that men inherited land from their father's and women from their mothers. Of this type of bilateral inheritance I obtained no evidence.

The interpretations that I put on the few and contradictory general statements of the informant coupled with the examples of transmission are as follows:

(1) Land was normally owned by males and transmitted to their male offspring. This conclusion is strengthened by certain exceptions and negative evidence: (a) the case of the informant's mother who inherited a tract because she had no living brother; (b) land

⁷ The informant's mother did have a brother, a chief named Gucibuk, who was doubtless dead when the informant's mother inherited the tract, although this was not definitely ascertained.

transmitted by a man to his sister's sons because he himself lacked offspring and brothers; (c) the informant was joint owner of tracts with his paternal parallel male cousin but not with his maternal parallel male cousin; (d) the informant did not inherit land from his mother's brother.

(2) Land was not held by individuals, except when a family became depleted in numbers. The normal ownership was by a patrilineal family of males who inherited from their father or fathers. (See the case of the informant and his parallel cousin Jake, who would be today, were it not for American colonization, the joint owners of two paternally inherited tracts.)

(3) Wives and sisters naturally had the use of the family tracts even though they appear not normally to have inherited. Frequent marriage to men of other villages may have militated against ownership of land by women.

(4) The ownership of land by the patrilineal groups of male kin among the Southeastern Pomo is but one step removed from the related ownership of land by the patrilineal clans of the Cupeño of southern California. In the case of the Pomo a small group of patrilineal kinsmen held a small number of tracts. Among the Cupeño a small nuclear group of patrilineal kinsmen plus a number of more distant and fictitious patrilineal kinsmen held a considerable number of tracts. The phenomena are so similar that it is readily conceivable that the Pomo type might develop into the Cupeño or that, with decimation of numbers, the Cupeño type might disintegrate into the Pomo.

(5) In view of the positive data from the Southeastern Pomo as to family ownership of tracts, I discount the value of the contrary negative evidence from the Eastern Pomo of Cigom. It seems likely that their land ownership was formerly on the same basis as that of the Southeastern Pomo and that the social disintegration caused by the intrusion of the Americans is responsible for the ignorance of family ownership displayed by the informants, who were all considerably younger than the Southeastern Pomo informant. With a similar type of ownership in two widely separate and linguistically different groups, Southeastern Pomo and Cupeño, it is hard to believe that the related nextdoor neighbors of one of them entirely lacked ownership of land by kin groups and had only communal ownership.

EASTERN POMO LANDS

LANDS OF THE VILLAGE OF CIGOM

The Eastern Pomo village of Cigom,⁸ formerly situated near Morrison's Landing on the eastern shore of Clear lake, was large as California villages run. A house by house census furnished by my principal informant, Jim Pumpkin, yielded twenty houses, mostly communal, and a population of 235 individuals. Fish and acorns were very abundant in the vicinity and the village was occupied the year round. On occasions, however, large parties went to Big valley, on the western side of the lake, to attend ceremonies. In spite of its large population the informant insisted that there was but one dance house and one sweat-house at Cigom.

The Cigomites were driven from their village in 1870 or 1871 ("forty-eight years ago," said the informant) by the Americans. This was at the time of the introduction of the "dream religion," i.e., the earlier "ghost dance religion." Some of the exiled Cigomites went to Kakulkalewical (see Barrett's map) at the northern end of the lake. Others took up their residence in Big Valley.

Cigom territory extended to the top of the mountain ridge east of the lake. Beyond was Wintun territory.

The site called Halika (see Barrett's map) was used only temporarily by the Cigom people. In the informant's youth there were but two houses there, each occupied only in the winter by people from Cigom. The adjacent Bank Ranch site is of recent occupancy. Taawina, the southernmost Eastern Pomo site on the eastern side of the lake, was not occupied in the period with which the informant was familiar.

The lands belonging to the village of Cigom and fronting on the lake shore are, from north to south:

- | | |
|--------------------------------|-------------------------------|
| 1. Kakulkalewical ⁹ | 7. Kombehel. Bank Ranch is on |
| 2. Mawip | this tract ¹⁰ |
| 3. Laxputsum ⁹ | 8. Hawihabagum |
| 4. Kabisati | 9. Halimacol |
| 5. Kikabutuwina | 10. Nobehel |
| 6. Basomdile | 11. Pududa |

⁸ According to the informant the name Cigom analyses as ci (blanket), gom (standing), a name said to have been assigned by Marumda, the creator.

⁹ See Barrett's map, also page 189.

¹⁰ See Barrett's map.

- | | |
|-------------------------------------|--------------------------------------|
| 12. Halika ⁹ | 18. Gayel |
| 13. Danoyo | 19. Xalewinyu |
| 14. Kalepat. F. L. Morrison's ranch | 20. Taagagoi (Taawina) ¹¹ |
| 15. Aabaldihá | 21. Tiletaagagoi |
| 16. Cigom ¹¹ | 22. Xabehuwai |
| 17. Bidomiho·ida | |

Kakulkalewical, the northernmost Cigom tract, adjoins Matelnapoti, the southernmost Danoxa tract. The informant stated that the hinterland tracts bore different names, but he was unable to supply them.

SOUTHEASTERN POMO LANDS

The Southeastern Pomo villages of Elem, Kamdot, and Koi were in unique situations, being located on islands in the eastern and southern arms of Clear lake. Elem (see Barrett's map, also page 208) was on Rattlesnake or Sulphur Bank island, Kamdot (see Barrett's map, also page 206) on Buckingham island, and Koi (see Barrett's map, also page 209) on Lower Lake island. These three villages were designated respectively by the Eastern Pomo as Xauku-maina, Limakmaiina, and Kaubakulaiina. The name Xaukumaiina referred both to the village of Elem on Rattlesnake island and to the village of Behepkobel sometimes located on the adjacent mainland. The latter was apparently originally an overflow village from Elem, but since the abandonment of Elem has become the only village. The name Xunadai applied by Barrett (p. 205, also map) to the mainland village was said to be a mistake, the name really applying only to the boat landing there. The Southeastern Pomo informant also said that the Eastern Pomo name Xaukumaiina for the villages of Elem and Behepkobel applied in Southeastern Pomo only to the waters surrounding Rattlesnake island. He gave the name of Kamfô also for East lake (the eastern arm of Clear lake).

A second mainland overflow village, which was once contemporaneously inhabited with insular Elem and mainland Behepkobel, was Mucokol, on a high oak-covered point on the northern shore of East lake (see Barrett's map, also page 209). Mucokol was inhabited in the youth of the informant. Although living in a different village the inhabitants of Mucokol were under the leadership of the Elem chiefs. It seems likely that blood relationship, not mere place of residence alone, is the factor that binds people to their chiefs. Such at least is apparently the case with the Eastern Pomo of Cigom, as will be demonstrated in a later paper.

¹¹ See Barrett's map, also page 190.

Elem owned all of the land back to the Wintun boundary, beginning about a mile east of Callahan's ranch on the northern shore of East lake to the northwest of Elem and including, in the hinterland, the eastern half of High valley, the name of which is Kas. The western half belonged to Kamdot. The mainland shore on three sides of the island village of Elem was claimed by that village. The long peninsula that juts out to the west toward Mt. Kanaktai and forms the south side of East lake was not wholly Elem property, however, the western third belonging to Kamdot from ancient times. The land beyond this high peninsula was claimed by Elem as far south as Kuulbidai creek, which separated Elem territory from Koi territory. Embraced in this portion of the Elem holdings were Burns valley and Big Borax lake.

Kamdot owned the peninsula projecting north from Mt. Kanaktai and the west shore of Lower lake for a considerable distance south. The western portion of the north shore of East lake was Kamdot property, as was also the western third of the long peninsula forming the south side of East lake. Kamdot mainland holdings were thus on three widely separated areas of the lake shore, lying to the west, north, and east of the island village of Kamdot itself.

Kuulbidai creek, on the east shore of Lower lake, was the boundary between the territories of Elem and Koi. Not only was it international in the sense that both of these villages fished it, but in a much broader sense, since Miwok and Wintun also fished in it exactly as they did in the lake waters. On the other hand a slough to the northeast of Elem is strictly Elem property, certain families holding tracts on either side of it. I could not learn whether it was communal, like High Valley creek, or was considered private property.

LANDS OF THE VILLAGE OF ELEM

The following is a list of tracts beginning at the northwestern boundary of Elem territory, which terminates about a mile east of Callahan's ranch. All of the tracts here listed front on the lake shore unless otherwise noted. The abutting hinterland tracts are mentioned in connection with the lake shore tracts. For convenience of reference, I have numbered the lake shore tracts, beginning at the northwest and proceeding around the head of East lake and down the east shore of Lower lake.

1. Bulko. A hill and the north-westernmost tract claimed by Elem
2. Behepsaukolol
3. Yelsaukolol
4. Bisonkan
5. Kaalkmat
6. Subekyum
7. Lelutckak
8. Sadaktamo·i
9. Kiwi
10. Molokmo·i
11. Matemuteulu
12. Kamui

Tracts 1-12 are without hinterland extensions

13. Moteui. Property of a chief named Tsebik. The hinterland extensions of this property are tracts called Teisadayowi and Xisopudai, located in High valley. An adjoining tract called Tcisadawamalda, in High valley, also belonged to Tsebik

14. Bukapowi. The property of the chief Gueibuk. The hinterland extension of this property in High valley was called Sumaono. It belonged to the same individual. The eastern boundary of Bukapowi was High valley creek

15. Kowa. First tract to the east of High Valley creek and property of Wokox, my Elem informant. The High valley extension of both this and the following tract is called Hakopda. It was also Wokox's property

16. Kokopidai. Property of Jake, the paternal parallel cousin of Wokox. The High valley extension is called Sos mamaia

17. Hotsompidai. A tract belonging formerly to Cotboi, a chief and

singing shaman. The High valley portion of this property is called Xabeli

18. Yoteisa
19. Kepidai
20. Slapitu. Owned by Haitea, a man who was aged when the informant was a boy

21. Wisikabel
22. Xololwin
23. Latipkan
24. Dadaklik
25. Lemo·i

26. Lelusa. Property of a chief named Wilbak. Its hinterland extension, also Wilbak's property, is Gegakat, on which is located the junction of four modern roads, near the head of Sweet Hollow creek. On the east Gegakat adjoins the territory of the Cache Creek Wintun. Its western boundary is the stone fence near the present village of Behepkobel. It is described as a very narrow tract, about six miles in length. Gegakat is now wholly or in part the property of an elderly rancher named Hansen

27. Mifulbitul
28. Matsubatimtim
29. Bakahulepidot
30. Amotbakma
31. Watkenauadai
32. Motkenauadai
33. Subkenauadai
34. Yolal
35. Sunhalakenauadai
36. Behepkobel. The present village. Not private property

Tracts 18 to 25 have no hinterland extensions

The list now proceeds with the tracts along the lake shore to the south of the village and thence along the north shore of the peninsula that forms the southern side of East lake.

- | | |
|---------------|----------------|
| 37. Nokboi | 42. Gensawakai |
| 38. Lakowit | 43. Duikul |
| 39. Bakamtwan | 44. Gegakan |
| 40. Nunsa | 45. Auauwani |
| 41. Teapidai | 46. Sokono |

47. Habatimbituni
 48. Fokatega. Said to mean "rough water"
 49. Kiigakat
 50. Makatciwi. A long tract extending into Burns' valley. Kebatiptun is the adjoining hinterland tract
 51. Nomaskino
 52. Hameknobidai
 53. Xaida. A long tract extending (inland) nearly to Kuulbidai creek, Its hinterland is Hatapdai
 54. Keselmowin
 55. Pitekaldai
 56. Konopkan. Site of the Sulphur Bank hotel and of a soda spring
57. Ginahau
 58. Kaskitcki
 59. Pinodakateia
 60. Nobticilin
 61. Kobahalkai
 62. Kiyekebeli
 63. Kiyewata
 64. Waalkililam
 65. Bahalkai
 66. Pikehalkabi
 67. Pigetskoiya
 68. Hawilinka. After this tract followed Kiyeutsit (see Barrett's map, also page 208) which belonged to Kamdot. From this point west on the peninsula the land was owned by Kamdot

Passing to the south side of the peninsula and proceeding east and south to Kuulbidai creek, the boundary between Elem and Koi territory, the tracts are:

69. Kaucel. See Barrett's map, also page 208. A camp site here was occupied two or three days at a time by fishing parties from both Elem and Koi, the neighboring waters being open to all. The grass seed and acorn preserves on this tract were strictly Elem property and were not molested by visiting Koi people. Tsilam is the promontory west of Kaucel; it marks the westernmost extension of Elem territory on the south side of the peninsula

70. Pudoni

71. Kommo-i. Property of Wokox. The inland boundary of this tract abuts on the inland boundary of Konopkan on the north side of the peninsula. In obtaining acorns from Kommo-i, Wokox employed a boat, thus traveling from Elem around the western end of the peninsula to this tract on its south side. He said that that was less laborious than transporting the acorns overland to Elem. Because of the abundance of grass seed and acorns and because of the ease of water transportation, he valued this tract more highly

than his tracts Kowa (Elem tract 15) and Kokopidai (Elem tract 16) on the north shore of East lake, where the acorns had to be carried a considerable distance overland

72. Bakamlali
 73. Lolekiik
 74. Kyekno
 75. Kesa
 76. Tsadai
 77. Tsamoxai
 78. Kotcate
 79. Yokibelalik
 80. Kaiana
 81. Matsakakat

82. Kulai. See Barrett's map, also page 208. On the north bank of Kuulbidai creek, the boundary between Elem and Koi territories. Elemites camped here to fish in the adjacent Kuulbidai creek

83. Katsapdai. An inland tract in Burns's valley

84. Kaselwituni. An inland tract in Burns's valley

85. Kulkoi. An inland tract in Burns's valley. Property of a chief named Tceptcebi

LANDS OF THE VILLAGE OF KOI

The list of Koi tracts was supplied by the Elem informant Wokox, who thinks that his enumeration is incomplete. The list begins with the northernmost Koi tract on the east side of Lower lake and names the tracts in order southward to Yo (see Barrett's map) at the southern end of the Lower lake. The tracts are as follows:

- | | |
|--|---|
| 1. Kuulbidai. See Barrett's map, also page 208. On the south side of the creek of the same name which formed the boundary between Elem and Koi territory | 7. Makai |
| 2. Lapitecilin | 8. Mulkoi |
| 3. Nelpidai | 9. Gowandai |
| 4. Xube. See Barrett's map, also page 207 | 10. Sabeana |
| 5. Sitsakuma | 11. Kololknopudai |
| 6. Sokokan | 12. Kolin |
| | 13. Otcomkenauadai |
| | 14. Yo. See Barrett's map, also page 209. At the extreme southern end of Lower lake |

The Koi lands on the west side of Lower lake, northward from Yo, are named in the following list:

- | | |
|-----------------|-------------------------------------|
| 15. Yotala | 29. Soile |
| 16. Lakan | 30. Bumat |
| 17. Tewalbakani | 31. Tcetax |
| 18. Watbakani | 32. Sokoi |
| 19. Tosi | 33. Skekno |
| 20. Yohabemoi | 34. Tsabal. Camping place for |
| 21. Kiyabidot | Koi people only. See Barrett's map, |
| 22. Haida | also page 209 |
| 23. Kiyeko | 35. Coyakno |
| 24. Gatapudai | 36. Haiwidi |
| 25. Abetalawin | 37. Kulai |
| 26. Gaiui | 38. Dakolda. Then follows the |
| 27. Mukatega | southernmost Kamdot tract, Kokatseo |
| 28. Sintcoii | |

LANDS OF THE VILLAGE OF KAMDOT

Kamdot held lands on three shores of the portions of Clear lake designated as East lake and Lower lake. The list of tracts fronting on the lake in these three regions was furnished by the Elem informant Wokox, who expressed doubt as to its completeness.

The tracts along the west side of Lower lake, beginning at the northern boundary of Koi territory and proceeding northward, are:

- | | |
|---|---|
| 1. Kokatseo. This tract adjoins the Koi tract of Dakolda | 14. Tsawi. See Barrett's map, also page 206 |
| 2. Behepkān | 15. Hateinkama |
| 3. Tsawalkno | 16. Nokno |
| 4. Putatskenak | 17. Kabalkuihelegat |
| 5. Knel | 18. Galamkan |
| 6. Dakilam | 19. Teepitcilinek |
| 7. Kaalkfai. See Barrett's map, also page 209. This was a camping place visited not only by Kamdot people, but also by the peoples of Elem and other places, in order to fish | 20. Kinikinimkinaudai |
| 8. Mitukenhahabekat | 21. Klittcilwinswel |
| 9. Kamekololi | 22. Makmakmoi |
| 10. Tsilmoi | 23. Kaleliyo. See Barrett's map, also page 206 |
| 11. Liabambidik | 24. Lakowit |
| 12. Konoktaikno. Eastern side of Mt. Kanaktai and the adjacent lake shore | 25. Tciyolkitlali. See Barrett's map, also page 206 |
| 13. Tsahowin | 26. Kololaga |
| | 27. Kecelmowin |
| | 28. Pusaiya |
| | 29. Tewahabel |
| | 30. Cakai. See Barrett's map, also page 206 |

The western portion of the narrow peninsula that separates East lake from Lower lake will next be considered. The tracts on the peninsula run clear across it in a north and south direction and from west to east are:

- | | |
|------------------|---|
| 31. Kili | 37. Hebebasem |
| 32. Xaduyot | 38. Xewilinha |
| 33. Petalwinseyo | 39. Kiyeutsit. See Barrett's map, also page 208. The next tract to the east is Elem tract number 68, called Hawilinka |
| 34. Aititkno | |
| 35. Boduda | |
| 36. Teauteil | |

The western portion of the north shore of East lake was composed of the following lake shore tracts. The names of the hinterland tracts in High valley were unknown to the Elem informant, Wokox. Beginning, therefore, at the eastern boundary of Elem territory and proceeding westward, the Kamdot holdings are:

- | | |
|---|------------------|
| 40. Kabebatem. The easternmost Kamdot tract, adjoining the Elem tract Bulko | 42. Sulka |
| 41. Yutot. Now occupied by Callahan's ranch | 43. Kitapudai |
| | 44. Behebidate |
| | 45. Kulbitciline |
| | 46. Komesoswin |

47. Taabatam	52. Wisikabekan
48. Mimikokno	53. Tei
49. Putolkeleo. Part of ranch of Mr. I. Alter	54. Kaitcakat
50. Ktsukawai. See Barrett's map, also page 209. Part of ranch of Mr. I. Alter	55. Wisihabelkat
51. Tuida	56. Kolimatakmin
	57. Putakwiteni. Then follows to the northwest the territory of the Eastern Pomo village of Cigom

The idea suggests itself that possibly residence on islands instead of on the mainland led to family ownership of land among the South-eastern Pomo, as contrasted with the communal ownership of the Eastern Pomo mainland village of Cigom. In the case of the South-eastern Pomo, ease of access to neighboring shores by boat eliminated the obstacles of overland travel and made all tracts of practically equal value. Where travel to one's property was entirely overland, remoteness and geographic obstacles obtruded themselves and made certain distant tracts undesirable, and conversely made those tracts nearest the village the most desirable. With private ownership, this condition might tend to create undesirable social distinctions between the owners of near and of remote tracts. The unique insular situation of the Southeastern Pomo villages, each centrally located in reference to its mainland holdings, would appear to eliminate largely such possibilities in private ownership.

NOTES CONCERNING THE MAP

1. The interstock boundaries are after Barrett's map (present series, vi, map 1), except that the Lake Wappo area has been omitted.
2. The inter-Pomo boundaries (rows of crosses) are after Barrett except that the Eastern Pomo-Southeastern Pomo boundary runs through territory treated by Barrett as Wappo.
3. The boundaries between the territories of the villages of Kamdot, Elem, and Koi are probably approximately correct and are based on information from an Elem informant.
4. The boundary between Cigom and Danoxa territories is purely hypothetical except at the lake shore, where it is reasonably certain.
5. The scale of the map is half the scale of Barrett's map, namely, one centimeter to four miles.

THE HABITAT OF THE WAILAKI

BY

P. E. GODDARD



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THE WAILAKI PEOPLE

The northwestern portion of California contained a large number of fairly small tribes, each with a very limited range of territory. The primary cause of this diversity would appear to be the many small valleys separated by mountain ridges. Even the valleys of the larger rivers are often subdivided where they narrow into canyons. There appears to have existed between the tribes almost universal hostility, so that each tribe was confined to its particular territory except for hostile excursions and occasional trading expeditions. It appears that the women and many of the men would under ordinary circumstances pass their entire lives within the limits of a small valley and the surrounding slopes and ridges, which furnished the range for acorns and other wild vegetable foods and which were also the hunting territory of the tribe.

The term Wailaki, which was brought into general use by Stephen Powers,¹ may be applied to those Indians of the Athapascan stock who occupied the valley of the North Fork and the valley of the main Eel river below (northward) from Round valley, Mendocino county, to Kikawaka creek in Humboldt county. The inhabitants of the upper portion of the North Fork were called "Pitch people" by the remainder of the Wailaki, with whom they seem to have had no political bonds. The Indians on the lower portion of that stream and those of the villages on the main river above and immediately below its mouth seem to have been interrelated and to have had a feeling of political unity, especially in contrast with the villages farther down Eel river.

Each of these three main divisions of the Wailaki consisted of more definite local groups which apparently had definite boundaries on the river as well as delimited hunting grounds on an adjoining ridge. In the summer and fall they appear to have been under the control of one chief, and to have camped together for gathering nuts and seeds and for community hunting. In winter they lived in villages and were further subdivided.

¹ Contr. N. Am. Ethn., III, 1877.

No information was secured concerning the villages of the "Pitch people" who formerly lived on the upper portion of North Fork. At the time of the investigation, these people were living in Hull's valley, north of Round valley, and no opportunity was found for visiting them.

SUBTRIBES ON NORTH FORK OF EEL RIVER THE KAIYEKIYAHANG

On the northern side of North Fork about midway east and west of Sec. 12, T. 24, N. R. 14 W. Mount Diablo meridian is a large tall rock called *sənəs*, just west of which was a village called *sənəsbənnəñkai*, *rock tall its slope* (1).² On the south side and a few yards downstream was a village called *k'asoletcobi'*, *arrowwood rotten flat* (2). Traces were clearly evident of houses and of a dance house, named *kaiyekiyahañ neyt*, which probably served the needs of the subtribe. Charlie Heath, the informant, said his uncle remembered the building of the dance house when he was a small boy. On the north side of North Fork and about a half-mile below a considerable stream, Wilson creek, called by the Wailaki *dat'olkot*, *grapevine creek*, was a village named *noletcotadañ*, *waterfalls large among* (3). The village was on two levels; one near the stream, and the other on a terrace some yards north.

Two sites of villages which had not been occupied within the memory of living Indians were recorded. One was on the south side of North Fork just above the mouth of a small creek called *sənesteo*. The other was a half-mile south of North Fork and west of the last mentioned tributary. It was named *sənesteonatañkai*, *rock tall large crossing*.

Evidently the fishing was excellent in the district belonging to this subtribe, both on North Fork at the waterfalls, and on the tributaries. Two small streams come in from the south; *djoñkot*, *mud creek*, and *sənesteo*. The tributary from the north, Wilson creek, is said to be ten or twelve miles in length. The main fishing place was named *segakandañ*, *rocks through it (water) goes*. Although definite information is lacking, their hunting territory was probably along the ridge south of North Fork.

Two places are mentioned in connection with tales. Just below *sənəs*, Turtle used to throw a stone up the hillside and let it roll back,

² The numbers entered in parentheses after the village names refer to the numbered village sites on the accompanying map.

catching it on his breast. Coyote insisted that he be allowed to play the game. He dodged the stone the first time through fear, and the second time was knocked into the river, and drowned. On the ridge east of the old village called sənəsteonatañkai and overlooking it is a stone 18 inches long and 15 inches high, which represents a girl who lived in the east and came here seeking the young man of her dreams. He refused her, and she turned into stone.

On the north side of the main stream just below the mouth of Wilson creek is a pool of stagnant water. There were believed to be supernatural beings living in this pool. They say the footprints of a lost child led to the margin of this pond. The cries of the child were often heard afterward. The spot was avoided. It is named kattcabi', *smoke ? in.*

It is reported that forty of the kaiyekiyahañ were killed in a single attack by a civilian band of white men. Only one man is said to have escaped, the uncle of Charlie Heath.³ This attack occurred at kailcitandañ east of the mouth of Wilson creek.

THE SECHOKIYAHANG

Next below the kaiyekiyahañ was the territory of the səteokiyahañ. They had three villages; one on the south side of the stream and two on the north. The one on the south side was called stasteok'at, *rope large on it* (4). This village was said to have been a large one when the white people came to this region. When we passed the site in 1906 a small house built in the Wailaki style was standing there. It had been built four years before by the uncle of Charlie Heath.

On the north side was the village of lacenadailai, *horse chestnut stands point* (5). A house pit four and a half feet deep was observed. About sixty yards downstream was a village called setcolai, *rock large point* (6). This village had been the home of the father and mother of Charlie Heath's mother.

In addition to these recent villages two others, occupied prior to the coming of whites, were pointed out. A small creek called kaitcantakot, *Christmas berries creek*, enters North Fork from the south. Near this used to be a village. One time, when four houses stood here, a slide of earth occurred and buried the houses with their occupants. Although the cries of the victims could be heard, no

³ When very old, blind, and demented, this man returned to the vicinity where he fancied he heard the voices of the companions of his childhood. He finally took his life by sitting in a deep pool in North Fork.

attempts were made to dig them out. This was said to have occurred when the informant's grandmother's grandmother was small. Another ancient village, on the north side of North Fork not far west of Wilson creek, was named *setcidadañ*, *stone red mouth place*.

On the same side of the stream, somewhat downstream, was a summer camp called *totakk'at*, *between water*.

There are two places which are connected with myths or tales. On the south side of the stream is a cavern in which some people survived the flood. They put a pole up through the opening in order to know by the action of the water on it whether the flood was receding. It is called *sedjañ*, *rock hole*. Just below on the north side is a hole in the rocks where one day Coyote found three Cottonwood maidens. They took him in, but soon announced that they were going to gather seeds. They never returned.

THE SETANDONGKIYAHANG

The lower portion of North Fork was occupied by a subtribe called *setandoñkiyahaañ*. They had two villages, both on the north side of North Fork. About three-quarters of a mile above the mouth of the stream was a village called *səntciye*, *rock large under* (7). The rock for which it was named, with a large spruce tree, stands opposite the village site, on the south side of the stream. To this village belonged an aunt of the informant. About a quarter of a mile downstream was the second village of the subtribe, called *setandoñtei*, *rock runs to the water* (8).

SUBTRIBES ON MAIN EEL RIVER

THE SEHLGAIKYOKAIYA

Passing now to main Eel river and some five miles straight south from the mouth of North Fork, two considerable tributaries are encountered. Blue Rock creek, called *senate'makot*, comes in from the west, entering Eel river near the northern line of Sec. 30, T. 24 N. R. 14 W. Mount Diablo meridian. On the eastern side of the river just north of the southern line of this section is the mouth of Big Bend creek called by the Wailaki *dandaikot*, *flint creek*. These two streams, east and west, mark the southern boundary of the Wailaki country. The first villages upstream are said to have had a mixed population of Yuki and Wailaki, but they were not claimed as Wailaki villages.

The first political group on the eastern side of the river was the subtribe called *selgaikyokaiya*, *rock white large people*. Their territory extended along the river to McDonald creek, *canañteantci*, *creek dirty*.

The *selgaikyokaiya* seem to have had but one village at *selgaitcodaañ* (9) on a flat by the river on the east side. The east and west section line dividing sections 84 and 85 of T. 24 N. R. 14 W. was noted as passing through this flat. The village is said to have been large. There is a considerable ridge about a half-mile north of the village which comes down to the river from the east. It forms the divide between *dandaikot* and *canañteantci* (McDonald creek). The ridge was named *kissebaañkyodakk'an*, *coyote hole large ridge*. About midway north and south and near the western boundary of section 81 was a place called *t'añteiyaslai*, *leaves young point*, where the bowman was stationed while deer were driven south toward him.

THE NINKANNICKAIYA

Opposite the *selgaikyokaiya* on the west side of the river lived the *nunkannitckaiya*, *earth middle people*. They had a number of villages. About midway between the mouths of Blue Rock and Bell Springs creeks, on a large fine flat, was the village *sa'kanteldañ*, *beaver (?) valley place* (10). Just below this village a round rock stands in the river. It is called *sæteogoltcodalndañ*, *rock round riffle place*. In this rock is said to live a water eagle nearly as large as a man. There was a large village on the west side of the river a few hundred yards downstream from the mouth of *djoñkot*. It is called *tcollattcik'at*, *graveyard on* (11). About as far again downstream was the village of *selteabi'* (12). It is named for a large rock below which the village stood. It is situated nearly opposite the mouth of McDonald creek.

About two-thirds of a mile below the mouth of McDonald creek a number of large rocks lie in the bed of the river. This place is called *netacbi'*, *land slide in* (13) and seems to have been a noted fishing place. There is no mention in the notes of a village at this point, but several Wailaki were spoken of at other times as belonging to *netacbi'*. It is also not clear whether this fishing place was the property of the *nunkannitckaiya* or of the *nelteikyokaiya* on the eastern side of the river. There was a place for fishing in winter with hook and line, just above the mouth of McDonald creek called *kon-sontayæteogalloisandañ*. The ownership of this place, also, was not noted.

A village was described as situated on the north side of a branch of Big Bend creek, one half-mile above its mouth and about one-fourth of a mile from the main creek. The name is *bastcodadañ*, *slide large mouth place*, and was said to have been of considerable size. The inhabitants were said to have been the same people as those between Blue Rock and Bell Springs creeks. It is surprising that the river should separate the villages of a subtribe, since in winter the stream would be difficult to cross.

Within the territory of the *ninkannitekaiya* are three considerable creeks: Blue Rock creek is the first to the south; next Bell Springs creek, called by the Wailaki *salt'okot*, *hot nest creek*, and *djonkot*, *clay creek*. These streams and the mountainside drained by them furnished fishing and hunting grounds and also places for gathering wild vegetable products. The large rocks in the river at *netacbi'* impeded the movement of the fish up the river while under the rocks were holes and eddies. *Netacbi'* seems to have been an excellent place for salmon fishing and probably furnished food during the winter for a large population.

THE NEHLCHIKYOKAIYA

On the east side below the *selgaikyokaiya* were the *nełtcikyokaiya*, who were in possession northward to the mouth of North Fork. There appears to have been a village belonging to the *nełtcikyokaiya*, *nełtcikyok'at*, *ground red large on* (14), situated on a point of land running down to the river on the east side just above *netacbi'*, the fishing place of the region. The second village, *kaitcitudaañ*, *redbud place* (15), was downstream, below *netacbi'*, and somewhat back from the river. There was a rock shelter, called *tsęgolkallinseyę*, just above *nełtciteok'at* and close to the river, under which the Indians lived in winter.

THE SEHLCHIKYOKAIYA

From the North Fork down the main Eel on the east side as far as a creek called *tgastekot*, *cottonwood creek*, was the territory of the *sełtcikyokaiya*, *rock red large people*. They had three villages. One, known as *tonłembi'*, *streams come together in* (16) was situated on a terrace north of the mouth of North Fork and on the east side of main Eel river. We camped several days on this village site while the sites of the villages upstream were being located. Not far north a ridge runs to the river, and over the point of this ridge the trail

from down the river led. The crossing was called *kasiadan*, *his head comes up place*, referring, of course, to the first glimpse to be had of a traveler coming from the north.⁴ North of this ridge was a village, *kaitcitadañ*, *rebdud place* (17). At the third village, situated north of the mouth of a creek, called in Wailaki *canañteakot*, *creek large*, a tall rock stands on the northern side of the creek. The village was just west of this rock and was named from it, *s̄tatecikaiya* (18).

About a quarter of a mile downstream on the same side of the river was a large village called *s̄eltcikyo'k'at'*, *red rock large on* (19), whose people joined with those of *s̄tatecikaiya* during the summer.

A short distance downstream, perhaps a quarter of a mile, is *tgactekot*, *cottonwood creek*, the northern boundary of the *s̄eltcikyokaiya*. In Eel river at the mouth of this creek is a large rock called *s̄edjuñkolgalbi'*, *rock black smooth in*. It formed a favorable fishing place used by this subtribe and the *taticokaiya*.

THE TATISHOKAIYA

Opposite the mouth of North Fork, on the west, is a considerable elevation known as Island mountain, called by the Wailaki, *bañk'at*. Its eastern slope is less wooded than such exposures usually are. This mountain side was the hunting ground of the subtribe *taticokaiya*. They had two considerable villages and a rock shelter. The village of *taticcodaañ* (20) was situated in a grove of oaks about a quarter of a mile downstream from the mouth of North Fork on the west side of Eel river. Charlie Hardin, a well-known Wailaki, belonged here.

The second village was opposite the mouth of *tgactekot* and close by the fishing place which the *taticokaiya* shared with the *baskaiya*. The village was named *banteki*, *war (ghosts) cry* (21). Two or three families were accustomed to winter under the shelter of a large rock which stood on the hillside a short distance downstream from *banteki*. The name of the shelter was *łteiseyebi'*, *ashes rock shelter in*. The territorial limits of the *Tatishokaiya* extended downstream to the creek *natoikot*.

⁴ In the summer of 1922 ten house pits were counted here, four of them being large and deep. The site is opposite tunnel 25 on the Northwestern Pacific Railroad.

THE BASKAIYA

On the east side of the river downstream from the seltcikyokaiya were the baskaiya, *slide people*. Their territory, called basbi', began at tgactcikot and extended to dabactei'añkot, *ant hole creek*. The word *bas* refers to a hillside, usually of clay, which has broken loose and has slid down. The last chief of this subtribe had two names: k̄lai, *foot point*, i.e., *toe*, and yitdetceday, *his children all dead*. The Charlie Hardin mentioned above married a wife from this subtribe. The villages of this group were numerous and difficult to locate with exactness because of the condition of the notes and the lapse of time since they were taken.

A village called taldjñlai, *water clayey point*, was south of a creek taldjñkot, from which it took its name. The village appears to have stood just a little east of the northwest corner of Sec. 36, T. 5, S. R. 6 E. The village was a large one. Its inhabitants were exterminated by mixed bands of white men and Kekawaka Indians.

A large graveyard, called yasaitco, was pointed out on the north side of the creek and east of the crossing of the trail. A little downstream is a sharp rock, called tealsal, near which Indians camped in the springtime. The next village downstream was dastatedai, *string (?) point*, said to have been a large winter camp. Still farther downstream is a rock with a camp below it, called sedabbñteknñdañ, *rock sharp (?) under place*. Nearby, probably downstream, was a village called kotalcaldñañ, *man slipped down* (27). Just downstream is a sulphur spring called dalkattsokaliniñ, *deer milk flows up*. Just upstream, and higher up the hill, at a place called dalkattsokalindñañ, a house used to be put in the spring of the year. Near the river stands a cliff 500 feet long and quite high. It is named sait'o, *sand open place* (?). Under it many people used to spend the winter. The shelter was known as sait'oye. Eight men and two women were killed here by white men. Above this high rock and just south of it was a large village called sait'odadañ (30).

Farther downstream are two villages: slasyañbi', *squirrels they eat in*, and, nearer the river, neltcañk'at, *ground black on*. Still farther downstream was the village called dabactei'añdan, *ants nest place* (34). This was the last village of the baskaiya, since the boundary creek is just north of the village site. It was said that slasyañkot was another name for this creek. It is evident that the creek was named for one or the other of the two neighboring villages.

The territory of the baskaiya was examined in September of 1922 with the hope of rectifying and supplementing notes of 1906 from which the account of the villages given above was derived. On what was no doubt the old Indian trail along the east side of Eel river the following village sites were found.

Just north of the large creek believed to be Horse Ranch creek as noted on the map, near a monument of stones and a squared post, were two plainly defined house pits (18). About a quarter of a mile down-stream over rough ground where had been much sliding, 100 yards back from the river and 100 feet higher than its bed, were found eight pits (19). Nearly a quarter of a mile farther north stands a rock under which it is evident the Indians lived (22). About 50 feet nearer the river and close to its bank two house pits were found (23). The site is opposite the middle of the railroad siding at Ramsey. Perhaps 100 yards down-stream beyond a small creek one house pit was noted (24). On a rounded point of land opposite tunnel 26 on the railroad, just north of the Mendocino and Trinity counties boundary, were found eight pits, four of which were deep and distinct (25). A short distance north is a gulch, at that time dry, and beyond it a ridge running to the river where it terminates in a rock. On this ridge, 75 feet higher than the river, one definite pit was seen and several less evident ones (26).

A creek, dry at that time, comes into Eel river where it makes a short turn toward the west. Close to the north bank of this creek and 100 yards from the river is a rock shelter with two house pits below it. Just north of this rock shelter and above it are four more pits (27). Not far down-stream is a still larger creek bed. North of this creek, close to the river where it turns back more toward the north are two house pits about 50 feet higher than the river bed (28). About 200 yards downstream, 100 yards back from the river and 150 feet above it, is the large rock called sait'o as mentioned above. Below it four pits were found (29). Directly above this rock on the top and slope of a ridge are five pits. This is no doubt the village named sait'odadəñ (30). Down-stream beyond a very rough gulch and 300 feet higher than the river bed are eight definite house pits and several less conspicuous ones (31). About a quarter of a mile farther down-stream and an eighth of a mile beyond another dry creek, 75 feet above the river and 100 yards from it, two very deep pits were found, and one not so deep and plain (32). Approximately an eighth of a mile beyond this site, opposite milepost 191 on the railroad, 100 feet from the river bank and 50 feet above it, seven pits were counted, of which three were deep (33). Some three hundred yards down-stream a creek of considerable size comes in from the east. This is no doubt dabəstei'añkot as located on the map. Just south of its mouth and close to the river on a bench 50 feet above it, five very distinct pits were found (34).

North of this creek is a steep mountainside covered with trees and brush. The main trail crosses the creek much higher than the river. It is at the crossing that the rocks and villages mentioned above are situated.

THE SLAKAIYA

The territory of a subtribe called seyadañkaiya or slakaiya extended north beyond this creek to a considerable creek called on the maps Copper Mine creek, but known to the Wailaki as teiskot. Captain Jim's mother belonged to this group and he had several uncles who lived at one of the villages. The exact situation of all of the villages is not known.

The first village was some distance north of the boundary creek and on the river. It was named *akyañk'at*, *right here on* (?). This was the home of some of Captain Jim's uncles and of Wailaki Tom. Next north was *natalliñki*, *step over creek tail*, taking its name from a small creek just north of it. About a half-mile north of this creek, near the river, was a cillage called *tcołattcebannañ*, *graveyard hillside*. About 200 yards downstream and a little back from the river on a small hill was the village of *tommaskyodadañ*, *water slide large point place*. Some half a mile down the river was a village called *taggaskotañ*, *cottonwood trail down*. About a quarter of a mile downstream was a large village called *tosekyok'at*. At the next village, *t'otcallackyoki* *grass sour large tail*, on the north side of a creek with the same name lived several of the brothers of Captain Jim's mother.

A little way downstream was a large village called *sketcelkascanañ*, *mush thrown away sunny place*. It was situated at the top of a bank of rock, *sketcelkaiye*, where Panther in mythical times threw away mush he had carried on a hunt until he was discouraged. A mush-like substance appearing on the face of the rock each spring indicates by its thickness the abundance of the year's acorn crop. This substance was washed away during the winter. The rock where this happens is sandstone, and the mush-like substance appeared to contain iron, probably soluble in the winter rains. A little downstream, perhaps an eighth of a mile, was a village called *lekk'at*, *smoke on*.

On the east side of the river and close to it is a good rock shelter, named *kaslñkyobi*, *spring large in*, where a family used to spend the winter. When Captain Jim was being pursued by white men, he left his father-in-law, who could not travel longer with him, under this rock shelter to die. Captain Jim remarked that he used to see the skull lying there a long time afterwards. Nearby on the bank of the river was a village called *kaslñkyodañ*, *spring large place*. A short distance north near the bend of the river toward the west was the village *kaitcluñtadañ*, *Christmas berries⁵ among place*. This was the last, most northerly, of the villages of the slakaiya. There was a graveyard about a quarter of a mile north of the last mentioned village. Just beyond the graveyard is the boundary creek, *tciskot*.

The territory of the slakaiya was only partly examined in 1922. About a quarter of a mile up-stream from the river's turn toward the north is a point of land running to the river. On this point, 100 yards from the river and 75 feet above it, is a depression, or shallow valley. On the south side are four pits and on the north side two,

⁵ *Heteromeles arbutifolia*.

one of which is very distinct (35). Down-stream where the river swings toward the north is a flat, 50 feet higher than the river and 150 feet from it. Thirteen house pits were counted here, the larger number being deep and large. Just a little upstream and probably in the same village are four more (36). Down-stream beyond the acorn mush rock mentioned above and across a rough gulch, a village site was found on a point of land 75 feet above the river and 150 feet from it. Two large pits and one small one were found here (37). About 200 yards back from the river two more pits, one being large, were found (38). Some 300 yards down-stream on a ridge with a small creek up-stream and a large creek down-stream is a village site with four pits. This is no doubt where kaitclñtadañ stood (39).

THE SETAKAIYA

On the west side of the river much of the river bank downstream from the villages of the taticcokaiya was apparently unoccupied. The direction of the river gave an exposure to that side toward the northeast very unfavorable for village sites. Through the northern portions of Sec. 22, and the whole of Sec. 15 (T. 5 S., R. 6 E.), the river flows toward the north. Here on the west side was the country of the setakaiya. Captain Jim's father lived here. The location was a favorable one, for the exposure was to the east with a considerable ridge, which gave some shelter, coming down to the river at the north. The villages were numerous and often so closely placed that it is difficult to locate them on a map.

About a half-mile downstream from the mouth of natoikot, the southern boundary, was a village called selsokyok'at, *stone blue large on* (40). There is said to be a pond at this village site. Two hundred yards downstream stood the village senagatedañ, *stones walk around place* (41). Just downstream on a flat above the river was the village called Itagtebi', *black oaks in* (42). A small creek, called usgaikyokot, enters the river close to this village on the downstream side. Two villages were associated with this creek: one just downstream from its mouth called usgaikyoki (44), and one back from the river, on higher ground and a little upstream, known as usgaidadabbñlai (43). The former village was the home of Captain Jim's wife's father and of Tip's wife's father.

Downstream from this creek was a village called senanaitannik'at, *stones trail across on* (45). A little farther downstream a very small creek joins the river. Captain Jim's father used to build his house here some winters and live by himself. The house site was called tebbeteki, *gather grass tail* (46). About a quarter of a mile upstream from the bend of the river was a big winter camp called kaiganteik'at,

wind blows up on (47). Some five hundred feet above the river by a big spring was a village called *sait'otcedadañ*, *sand point on* (48). The next village downstream was named *lacelkotcedañ*, *buckeye small hole place* (49).

Not far downstream a rocky ridge comes down around which the river turns to the west. The ridge was called *seteok'at*, *rocks large on*. At the base of this ridge, extending east to the river, was the village *teennagañtedai*, *eye closed door* (50), the home of Captain Jim. A few paces nearer the river was a place named *basoitcedai*, *basoi door*. The basoi are immortals who live underground. They are often heard, especially when they come at night to fish with men. On the point of the ridge mentioned was still another village called *sedakk'añdañ*, *rock ridge place* (51). Nor far north is the creek *lacetcikot*, which formed the boundary. The setakaiya hunted and gathered acorns and other food on the mountain slope west of their villages.

THE CHISKOKAIYA

On the right bank of the river and north of the slakaiya were the *tosañkaiya*, *water stands people*, also called the *tciskokaiya*. The latter name is from the creek, *tciskot*, which formed their southern boundary. The name of this creek refers to red paint, and was probably suggested by the same indications that are responsible for the English name of the stream, Copper Mine creek. The villages south of this stream were not visited, but were noted at the dictation of Captain Jim as follows:

Not far north of *tciskot* was a village called *dandaitcambi*, *flint hole in*. Below that village and just above the turn of the river was one called *neteedetcañk'at*, *ground rolling on*. At a place called *tatañ* the Indians camped in February. On the north side of a small creek was the village called *tatalai*, *water middle on*. The creek was called *tatañkot*, and its origin is explained in a myth of the Eagle Woman.

On the top of a high bluff was a stone which resembled a sitting woman. It is believed this woman formerly lived at the extreme eastern side of the world. She dreamed of a man who lived in the west, and, taking her burden basket, she traveled until she arrived at his home on Eel river. He scorned her, and she turned into stone. The Indians at the village across the river used to determine the solstices by watching the point where the rising sun came up behind this bluff.

On the north side of the river downstream from its turn toward the west was a village named seteoknnedañ, *rock large its base place*. To the west, downstream from the last, was still another village called k'acsandañ, *alder stands place*.

A long distance downstream, probably in the bend where the river turns toward the northeast, was a village named teadetoknnedañ, said to be opposite the village of nadelyasdañ. There was said to be another village a mile and a half from the mouth of laceteikot, upstream, but it is probable this was a mistake for downstream. It was named setcik'at, *rock coarse on*. A considerable distance downstream, opposite the village of kantelteek'at, was a village called sekaibi, *make a noise in throat*.

THE KAIKICHEKAIYA

On the west side, below the setakaiya, beginning with laceteikot and extending downstream to canandañkot or Chamiso creek, was the territory of the kaikitekaiya, *live oak people*. This subtribe was also sometimes called canandañkaiya.

They camped on Chamiso creek in summer and at other times went there to hunt elk. Downstream, by the mouth of laceteikot, was a village called basetcēgalk'at, *throw stones outside on*. Next downstream was the village nadelyasdañ, *pine seeds place*. The next locality, dakostateedañ, was not definitely stated to be a village but presumably it was. Below this was kaikiteebi', *live oak in*. Next, going downstream, came dandaidañ, *flint place*. Still farther down was sekitdeek'at, *stone deer horn on*. The next village was named from the flat on which it stood, bantealteita, *fly flat*. The last village was called kantelteek'at, *valley small on*. From this village came the wife of a Wailaki named Tip.

THE FIVE NORTHERN SUBTRIBES

On the west beyond kaikitekaiya was a group known as dałsokaiya, *blue ground people*. They were said to visit with the people on Kekawaka creek to whom they were related. It is doubtful that they should be counted as Wailaki, but they were not Lassik and probably spoke the same dialect as the Wailaki.

Still farther north, at or near Jewett rock, close to Harris, were the set'ałtceokaiya, *pestle red large people*. They were friends of the dałsokaiya and of the Kekawaka people.

On Jewett creek, called by the Wailaki *dask'ekot*, *lung creek*, were the *k'andañkaiya*, *bow people*. Nothing is known of the villages of this group. They are represented only by mixed bloods living in the neighborhood of Harris. North beyond them in the bed of Eel river were the villages of the Lassik.

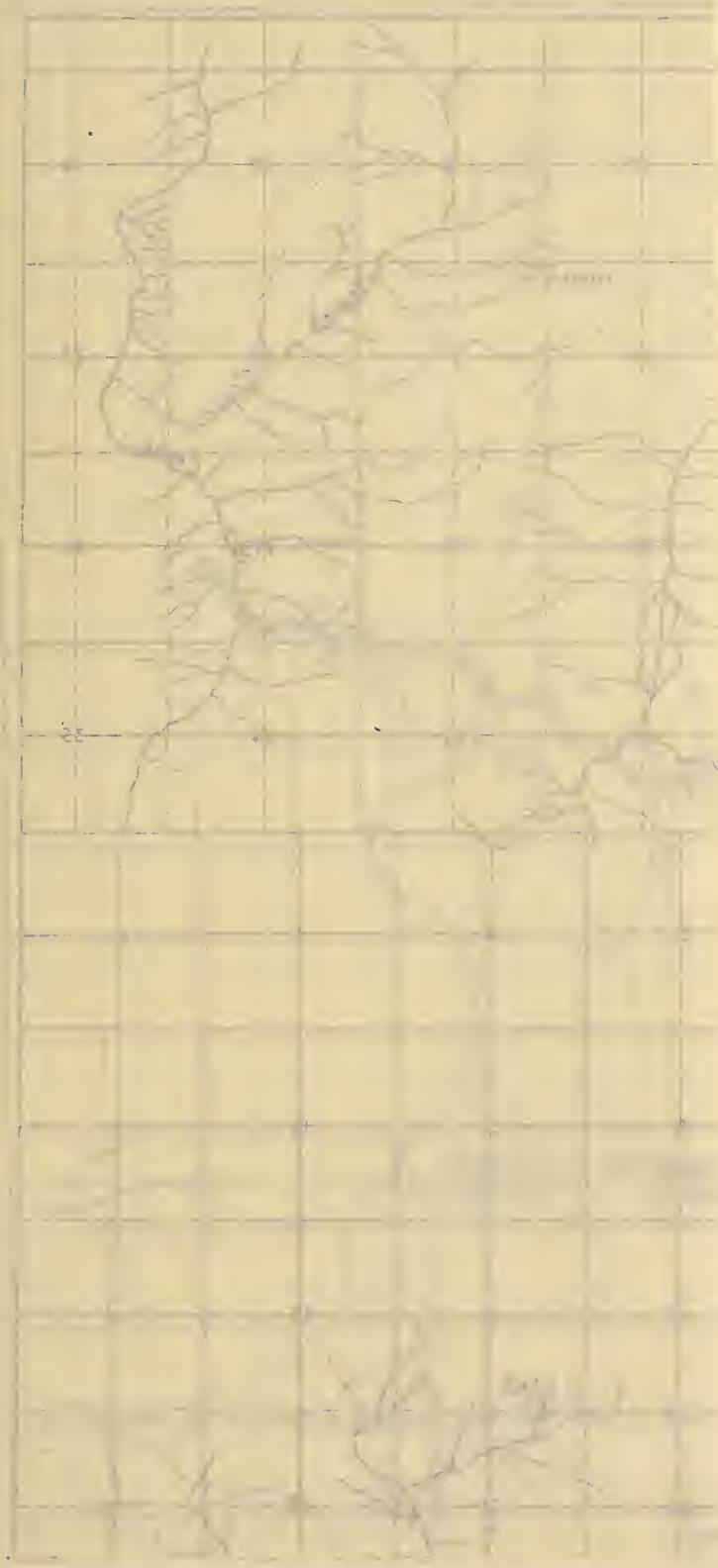
On the eastern side, below the teiskokaiya, were the *ilkodañkaiya*. They are said to have been a numerous people whose territory extended from about two miles below the mouth of Chamiso creek nearly to the mouth of Kekawaka creek.

The people on the north side of Kekawaka creek and on the east side of Eel river were known to the Wailaki as *kasnaikotkaiya*, *arrow creek people*. North of them were the Lassik. These people joined with the whites in the extermination of the Wailaki. That they ever had any political bond with the Wailaki is improbable. They were related by marriage, however, with the *ilkodañkaiya*, to whose country they came for acorns and buckeyes when their own harvest was short.

SUMMARY

In the middle of the last century there were living along Eel river, in a distance easily traveled on horseback in a day, eighteen small political divisions of the Wailaki, each having a chief and a definite territory, which included hunting and fishing grounds and favorable places for winter villages. Of these winter villages there were approximately sixty-six, not counting rock shelters and places where only one or two houses were situated. It is likely that some of these villages were inhabited earlier or later than others. The fact that some of the subtribes were said to have had only one or two villages and others as many as eight or ten suggests that the latter may not all have been contemporary settlements. However, the count includes no villages from five of the eighteen divisions, so that the total number of simultaneously inhabited villages in the whole Wailaki area, exclusive of the Pitch people, was probably not far from the sixty-six whose names were recorded.

The population is hard to estimate. There certainly were no less than a thousand and possibly twice as many. This estimate would yield an average population of fifteen to thirty per village, and from sixty to a hundred or more per subtribe. At the time the region was visited in 1906, there was practically no one living in this desolated valley. It was being used as a cattle range and supported but few people.





KEY TO MAP

Wailaki Sub tribes or Bands

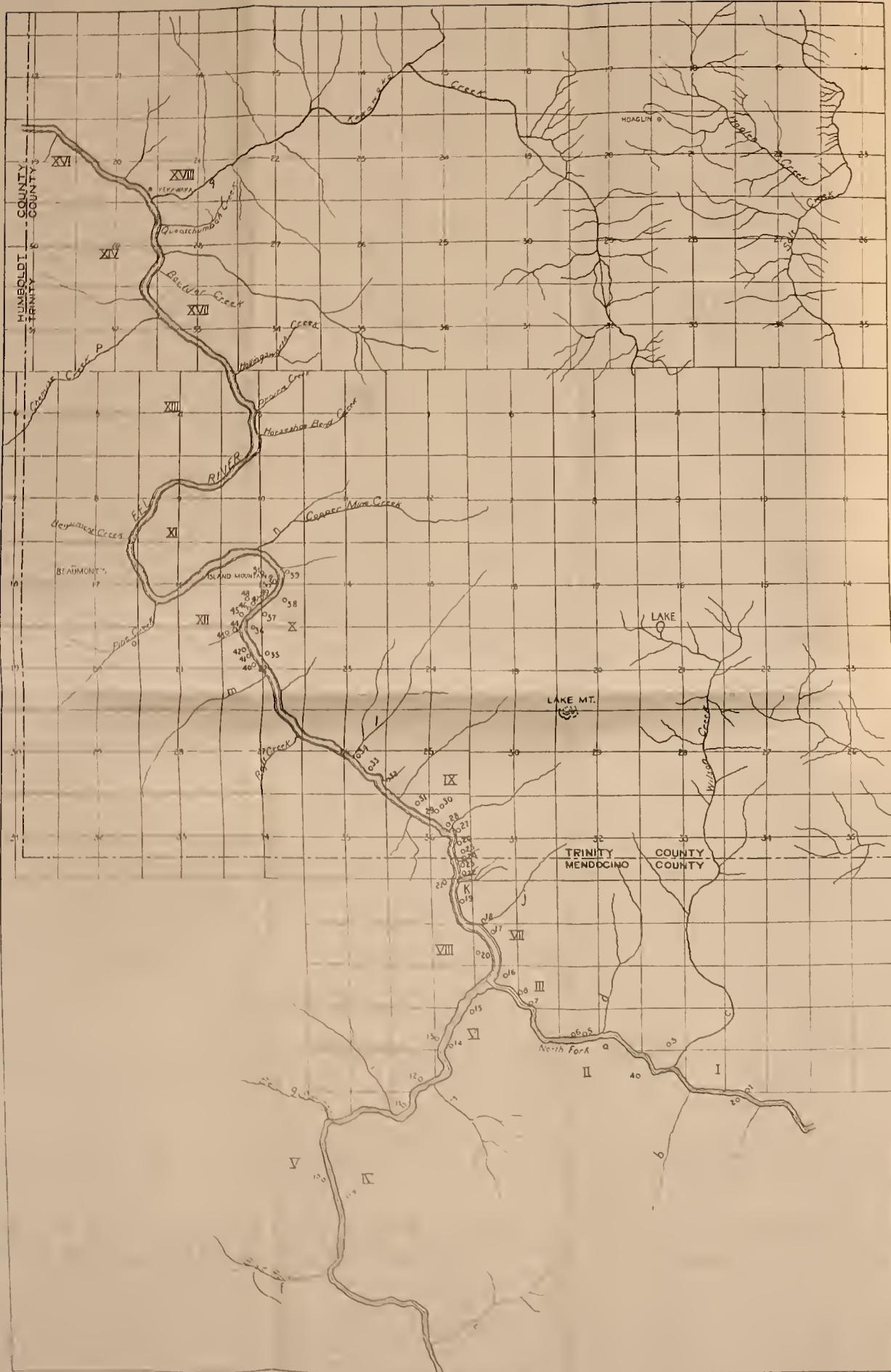
I, Kaiyekiyahāñ	XI, Tosañkaiya, or Teiskokaiya
II, Sētcokiyahāñ	XII, Sētakaiya
III, Sētandoñkiyahāñ	XIII, Canandañkaiya, or Kaikitcekaiya
IV, Selgaikyokaiya	XIV, Dałsokaiya
V, Nāñkannitekaiya	XV, Sē't'ałtcitcokaiya (Not on the map)
VI, Nełtekyokaiya	XVI, K'andañkaiya
VII, Seltcikyokaiya	XVII, Ilkodəñkaiya
VIII, Taticcokaiya	XVIII, Kasnaikotkaiya
IX, Baskaiya	
X, Slakaiya, or Sēyadañkaiya	

Wailaki Villages

1, senešbunnəñkai	30, sait'odadəñ slasyañbi'
2, k'asolečebi'	31, nelteañk'at
3, nołetcotadañ	34, dabastci'añdañ akyañk'at
4, stasteok'at	natalliñki
5, lacenadailai	tcolattcebannañ
6, setcolai	tommaskyodadañ
7, senteiyę	taggaskotañ
8, setandoñtei	tosekyok'at
9, selcaiteodañ	t'otcallackyoki
10, sa'kanteldañ	37, sketcelkascanəñ łekk'at
11, teolatcik'at	kaslunkyodañ
12, seltcabi'	39, kaitcləñtadañ
13, nełacbi'	40, səlsokyok'at
14, neltekyok'at	41, senagateedañ
15, kaitlcitadañ	42, Itaqtebi'
16, tonlembi'	43, ıscайдадబబñlai
17, kaitlcitadañ	44, ısgaikyoki
18, setateikaiya	45, sənanaitənnik'at
19, setcikyok'at	46, tcebbetceki
20, taticcodəñ	47, kaiganteik'at
21, bantceki taldjinlai dastateclai sedabbintcekunedəñ	48, sat'otcedadañ
27, kotealtecaldañ sait'oyę	49, lacelkotcedañ
	50, tecnagafteedai
	51, sedakk'añdañ

Streams

a, banikot, North Fork	j, canañteakot, Horse Ranch Creek
b, djoñot	k, tgactekot
c, dat'olkot, Wilson Creek	l, dabæctci'añkot
d, nadlætçannasoikot	m, natoikot
e, dandaikot, Big Bend Creek	n, teiskot, Copper Mine Creek
f, senate'nakot, Blue Rock Creek	o, lacetekot, Pine Creek
g, salt'okot, Bell Springs Creek	p, canandañkot, Chamiso Creek
h, canañtecutei, McDonald Creek	q, kasnaikot, Kekawaka Creek
i, djoñkot	





MOUND EXCAVATIONS NEAR STOCKTON

BY

PHILIP MILLS JONES



MOUND EXCAVATIONS NEAR STOCKTON

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EDITOR'S INTRODUCTION

In 1898, when W. H. Holmes visited California, he was shown certain earth mounds near Stockton, and unusual implements taken from them, which H. C. Meredith was at the time beginning to describe.¹ Professor Holmes subsequently discussed the remains with his usual succinctness and lucidity.² In 1900 the late Dr. Philip Mills Jones, commissioned by Mrs. Hearst to explore the prehistoric localities of California, excavated several mounds in this region, and subsequently filed a report, the major part of which forms the following paper. The peculiarities of the artifacts characteristic of the region of Stockton and the lower San Joaquin delta have been brought out by the earlier observers; therefore they are not reenumerated in Jones' report, whose significance lies in its account of the structure of the mounds examined by him, and the place in them of burials and implements. His is the first paper that gives accurate information on this aspect of the data.

The prehistoric culture of the Stockton area shows the following local peculiarities.

(1) Flattish mounds, mainly of earth, with some refuse, and practically no shells. Meredith and Holmes regard them as reared as places of habitation in an annually inundated country; but Jones looks upon them as natural formations.

(2) Bodies not regularly oriented, when buried, and as often in extended as in flexed position.

(3) Serrated obsidian implements, single or double pointed, curved or angular in outline. These, known as "Stockton curves," have been variously interpreted as intended for scarification, cutting flesh, and as due to the grain of obsidian nodules available. E. W. Gifford, however, has recently ascertained from the Miwok of the

¹ In Warren K. Moorehead, *Prehistoric Implements*, Section IX, pp. 258-294, [1900]; *Land of Sunshine*, October, 1899; *American Archaeologist*, II, pp. 319 ff., 1898.

² *Anthropological Studies in California*, in *Rep. U. S. National Museum for 1900*, pp. 155-187, 1902 (pp. 176-178 on Stockton district).

foothill country above the lower San Joaquin, that such curved obsidians were used among them, and presumably also among the Yokuts about Stockton, as artificial claws by dancers or religious performers impersonating bears. Several of the pieces illustrated by Meredith and Holmes³ possess much the shape of bear claws and a groove for attachment. Whether or not all these curves are to be interpreted as having been so used, is less certain. At any rate they were not beyond the capacity of the ordinary California Indian to produce. Ishi, the last Yahi, on being shown the design in 1914, easily made several imitations.⁴

(4) Clay balls, averaging smaller than a fist, more or less baked. A minority are incised, usually with rows of small punch marks. Holmes speaks of them somewhat noncommittally as sling shots, presumably for hunting waterfowl. Jones, as will be seen, regards them as substitutes for cooking stones in an alluvial region.

(5) Cylindrical jars or "vases" of steatite.

(6) *Haliotis* ornaments, from one or two to five inches long, which to Holmes suggest a double-headed bird, while Meredith likens them to banjos. They consist usually of a round or oval portion with a neck from which two or three tabs project on each side, like the keys of a stringed instrument. A perforation shows that they were worn with the neck or head hanging down. Ornaments of this type occur not only in the Stockton district, but on Suisun bay.⁵

(7) Etched bird bones, with somewhat more elaborate geometric incisions and a higher polish than are usual in California. These are not mainly whistles, as Holmes says. The majority were ornaments, probably either for wearing in the ear or for holding in the hand in dances, perhaps usually with feathers inserted.

It thus appears that a local type of culture once flourished in the region of the San Joaquin delta, on which Jones' notes may serve to throw light. The types having been shown in the writings of Holmes⁶ and Meredith,⁷ no illustrations are appended here.⁸

³ Moorehead, fig. 394; Holmes, pl. 25.

⁴ Anthropological Museum of the University of California, numbers 1-19871 to 19873.

⁵ University Museum, numbers 1-4972, Vallejo; 1-16806, Benicia; 1-17070 to 1-17072, Isleton; 1-17080, Isleton.

⁶ *Op. cit.*, pls. 23-28.

⁷ In Moorehead, *op. cit.*, figs. 394-400, 402, 404-405, 408, 410-414, 426.

⁸ The objects recovered by Jones near Stockton are catalogued as numbers 1-3117 to 1-3367 in the University Museum. 1-3142 is a cylindrical jar of magnesia or mica; 1-3355, a clay bead; 1-3352-54 and 1-3144-48, decorated clay balls; 1-3117-18, and 1-3122-41, plain clay balls; 1-3169-3345, fragments of clay balls.

REPORT BY THE AUTHOR

In certain mounds near Stockton two unique types of aboriginal manufactured products have been found, and, as these mounds have been dug into most unsystematically by amateur collectors, it seemed wise to endeavor to secure some of this peculiar material. The unusual objects referred to were brought to my attention by Mr. James A. Barr, Superintendent of Schools of Stockton, who has personally dug many of them from the mounds in the vicinity of that city. They are, first, rudely made baked clay balls, found in large numbers, generally plain but occasionally decorated, and rarely of fanciful shapes. Second: certain chipped obsidians of rather unusually fine workmanship and peculiar curved outline. In the *American Archaeologist* for 1898, and the *Land of Sunshine*, 1899, are papers by H. C. Meredith, in which these "Stockton curve" obsidians are described and illustrated. Their genuineness is questioned by H. N. Rust in a letter to the *American Archaeologist* (1898). Certain masses of obsidian will produce curvilinear flakes when struck. In Barr's collection are several such specimens, unworked and partly worked, which were found by him in a mound from which a number of specimens of the finished object were obtained.

Barr has also found finished specimens in two other mounds in the vicinity, generally near the head of skeletons. The opinion that these curved obsidian objects were used by the Indians as "ceremonial bleeders," is advanced by Meredith, and has also been suggested to me, in discussion, by W J McGee. Experimental operations by me demonstrate their inadequacy for such a purpose. The superficial locations in which they have been found, in loose soil, and with skeletons in the upper strata, indicate comparatively recent manufacture.

MOUNDS 1, 2, 3

On July 27, 1900, I made camp near a mound about 200 yards south from the dry bed of Mormon slough, 9 miles east of Stockton.

This mound, no. 1, is some 300 feet long by 200 feet wide, and at the highest part near the center is between 4 and 5 feet above the level of the surrounding plain. It was carefully examined by running trenches at right angles through the center and by sinking pot-holes at various places. So far as I could determine, the mound had not been disturbed save for some ploughing over the surface. Mounds

2 and 3, about a mile and a half downstream on the north side of the same slough, near a house, were of the same general character as mound 1, but had been much more disturbed by extensive ploughing and by scraping off the top.

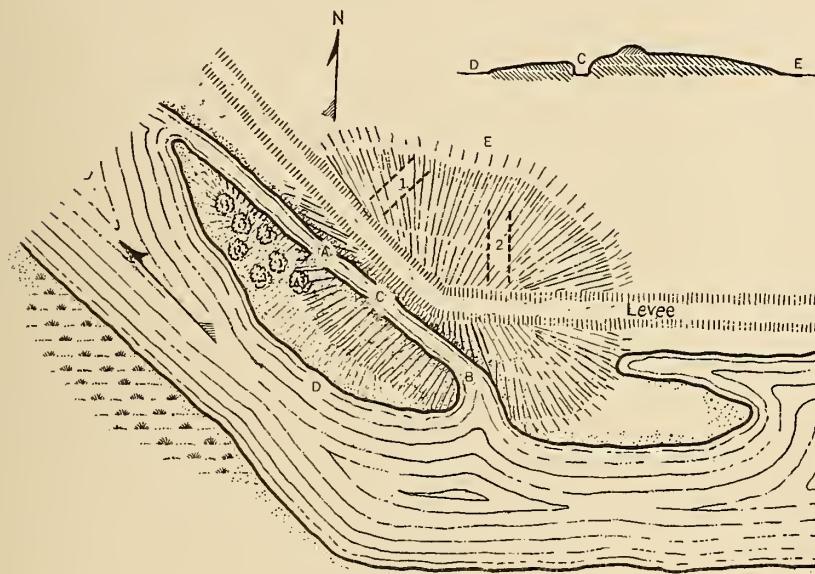
These three mounds were in most respects very similar; they will therefore be considered together. The surface soil to a depth of from a few inches to 2½ feet is loose and largely mixed with ashes and refuse; at the central portions but few ashes are encountered in digging down, but toward the edges of the more elevated portion the ashes become plentiful. No human bones were found in these mounds with the exception mentioned below, though the bones of deer, elk, sheep, duck, wild goose, and rabbit were noted. Mixed with the kitchen refuse, ashes, and charcoal, were a great many fragments and a few unbroken specimens of rudely made baked clay balls, together with an occasional rude bone or horn implement and some partly worked flint flakes. All the long bones of game animals were split and most of them showed traces of fire.

On the surface of mound 2 were found several fragments of human bones, and the man who lived in the nearby house told me that, in scraping away the top of the mound some years ago, several skeletons were unearthed. The mounds themselves seem to be natural slight elevations which have been utilized by the Indians as camping places or village sites; they show no evidence of artificial formation.

MOUND 4

On August 2 I moved camp to a large mound, no. 4, on French Camp slough, three miles south of Stockton and about a quarter of a mile west of this and Mormon slough. This mound has been dug into rather extensively by Barr, Meredith, and others, and from the statements made to me by Barr I judged that practically the whole of that portion north of the levee which traverses the top had been disturbed at one time or another during the past four or five years. A large number of bodies had been disinterred, but I could not obtain sufficient data to form a reliable estimate of the total number. With the bodies which they have exhumed near the top of the mound, shell ornaments, beads, and worked flints were found, while very little seemed to have been buried with the bodies of those who had been interred at the outer edges of the area used as a cemetery. Barr further informed me that some of the bodies at or near

the top of the mound showed slight evidences of having been partly burned—as though attempted cremation had been practiced—and that they exhibited no regularity in orientation or method of burial, save that they were usually extended on the back. A number of the curved obsidians already referred to were found by Barr in this mound.



Map showing mound no. 4, Stockton, with relation to slough, levee, cutting, trenches, etc.; also section through mound.

I estimate the original size of this mound to have been about 100 feet by 75 feet, with a high and habitable portion measuring some 50 feet by 40 feet, and approximately 7 feet rise above the level of the plain. All that part to the north and northeast of the levee has been dug to a depth of from 2 to 4 feet; on the south side of the levee and east of the ditch cut by dredging, most of the soil has been disturbed to the same depth, numerous holes have been sunk, and some bodies have been found; on the portion located on the island artificially formed by the channel made in cutting for the levee, only traces of refuse can be found; southwest of the levee, between the point where it turns from west to northwest and the northwest extremity of the mound, the soil does not appear to have been disturbed prior to my excavations.

Several trenches were run from the northern edge of the mound to the line of the levee, but as I had promised that the levee would not be disturbed I did not tunnel under it nor remove any of it. Everywhere, except at the place marked 1, were signs of previous digging to a depth of from 2 to 4 feet, and where skeletons had been exhumed the soil was filled with miscellaneous human bones and fragments of skulls. The soil itself is a brown, sandy clay, mixed in places with adobe, and contains large quantities of ashes, charcoal, and bones of animals, together with fragments of baked clay balls; fireplaces, kitchen refuse, and skeletons seem to have been promiscuously distributed through the mound. Very few stones are encountered and these in almost every instance show clearly that they have been used as hammerstones; at one place in trench 1 a cache of several fine and much used hammerstones was found near a fireplace. Rude bone and horn tools, a small number of partly or wholly worked flints, together with large numbers of fragments and some fifty unbroken baked clay balls, were found unassociated with any human remains.

In this portion of the mound north and northeast of the levee, four undisturbed skeletons were found. The first was encountered in running trench 1, 5 feet from the beginning of the trench; it was lying on the back, slightly toward the right side, extended, with the head toward the northwest. One foot southeast of the feet of this skeleton were found five hammerstones, while in the soil surrounding the head, and some 6 inches from it, were a few perforated shell disks. The second skeleton was found on the same level with the first, 2 feet nearer the levee; the position was the same as that of the first one found, except that the head was some 5° more to the north. Nothing whatever lay with this second skeleton, nor in the soil about it. The first skeleton encountered was at a depth of 3 feet and the second at a depth of between 3 and 4 feet; the difference is due to the rise in the elevation of the surface of the mound as the trench was carried forward toward the levee.

Two more skeletons were found, in trench 2, near the spot marked 2. They lay at a depth of between 5 and 6 feet, and the soil above them, to a depth of slightly over 4 feet, had been previously dug: it was a mass of miscellaneous human bones and fragments of bones which had been dug out and afterward thrown back. These two skeletons were lying on the back, extended, with heads toward the west, the upper one across the lower, the spinal column crossing and in contact with the lower portion of the chest of the under skeleton;

the heads and pelvises were in contact. Immediately beneath them was a bed of ashes and charcoal, and the bones of the legs showed blackening and charring by fire. At the feet were a rough paint mortar and three rounded brook pebbles of the variety generally used as hammerstones, together with the bones of two birds and one bird bone which had been pointed as an implement. On the left side of the chest of the lower skeleton, between the ribs and the flexed forearm, with its mouth directed toward the feet (east), was a cylindrical vessel of magnesian mica, some 10 inches long and of oval section. This "vase" was empty and the position in which it was found showed that it had been hugged to the left side by the left arm of the person with whom it had been buried. While the soil in which these skeletons were found was rather loose and not at all tightly packed, the cavity formed by the arching ribs was nearly empty; only two handfuls of dirt had sifted through the spaces between the ribs of the lower skeleton. The interments thus seem comparatively recent in spite of the fact that other bodies had been buried above these two. That the two recovered individuals had been buried simultaneously was equally manifest. These two skeletons were located 4 feet from the edge of the levee and in what must have been the outer edge of the upper flat portion of the mound at the time of its occupancy.

STRATIFICATION

On the southwest side of the levee was a strip of the mound remaining undisturbed. It was from 5 to 10 feet in width between the rise of the levee and the ditch cut in dredging, and presented toward the false channel of the slough an almost vertical face, represented in the map as the portion between A and B. This vertical face through the mound nearly at the edge of the high central portion which must have been the place of erection of huts, exhibited the stratification of the original mound. From the surface to the base at the highest part of the section, midway between A and B, the strata are as follows.

Surface stratum: light yellowish brown clay mixed with sand and humus and covered with weeds and brush: 18 inches thick, tapering to 6 inches at either end of the section.

Second: at the juncture of the surface stratum and the third layer is a clearly defined series of ash deposits, not continuous, but pretty well distributed, and varying in diameter from a few inches to 2 or more feet, and in thickness from a mere trace to 3 inches.

Third: a stratum of black adobe 6 inches in thickness on the upper surface of which were the ash deposits mentioned. It is noteworthy that this stratum is not parallel with the upper surface of the top layer or surface stratum, but that it has a much greater radius of curvature—is more nearly level—than the surface, and that it is very even in thickness, varying not more than 1 inch in this respect.

Fourth: underlying the black adobe is a thin layer of sandy clay light yellow in color and imperceptibly shading into a mass of ashes, flint chips, worked flints, bone flakes, broken baked clay balls, and fragments of game and fish bones.

Fifth: a stratum of clayey sand, similar to the upper soil of the fourth stratum, and varying in thickness from 1 to 3 inches.

Sixth: another layer of sandy soil about 3 inches thick mixed with ashes, bones, worked flints, etc., and containing an immense number of minute flint and obsidian chips, such as would be pressed off in retouching.

Seventh: the soil forming the mass of the mound, which apparently had not been disturbed. It is a very tough and tightly packed yellowish brown clay and is hard to dig. It extends to the water level of the slough.

The fourth and sixth strata were evidently formed by the slow accumulation of house refuse and what appeared to be the sweepings from the shop of some aboriginal manufacturer of flint and obsidian tools. Several good arrow joints were found in these strata, together with a few bone and horn implements, a fish spear, and numerous baked clay balls.

Excavation was carried forward to the edge of the levee and the strata as enumerated were found to be continuous and unbroken up to the point where the work was stopped by the embankment. At no place had any of the strata been disturbed, nor had this portion of the mound been dug into either by the natives for burial or by collectors. To make sure, however, that nothing was being overlooked, I had the bottom layer dug to a depth of 1 foot. It was exceedingly tough and tightly packed and rather difficult to dig; it contained no ashes, charcoal, bones of animals, shells, flint chips, or implements of any sort, and in fact nothing which showed the slightest trace of use by man, with the following exception:

At a point one-third of the distance from A toward B, where the width of the part of the mound between the edge of the cutting and the levee was about 8 feet, and some 4 feet from the edge of the

cutting, four human skeletons were found 8 inches below the surface of this bottom soil and in dirt that was as hard and compact as the soil on either side or below. The soil gave no indication of ever having been disturbed, and the unbroken strata above furnished conclusive evidence that the burials were not intrusive. These skeletons⁹ lay parallel and close together, occupying a lateral space of 5 feet; nothing whatever was buried with them, and careful search for a considerable distance around the bones failed to disclose any artificial product. With the exception of one,¹⁰ which was huddled up with the legs flexed upon the abdomen, the bodies had all been buried extended, lying upon the face, with the head turned slightly to the left; the axis of all was NE-SW, with the heads to the NE. Great difficulty was experienced in removing these bones owing to the toughness of the soil and their great frangibility; but some of them were successfully obtained intact.

These four skeletons are probably the oldest human remains that have thus far been found in the vicinity, and the presence of the several unbroken strata above them would seem to indicate that a considerable period had elapsed since their burial.¹¹

Numerous trenches and prospect holes, dug at almost all other parts of the mound, failed to locate anything more than mixed bones showing previous excavations, with an occasional implement, hammer-stone, pestle, or awl. Work was therefore abandoned and camp broken on August 15, 1900.

THE CLAY BALLS AND POTTERY

So far as I am aware, the baked clay balls have been found only in the vicinity of Stockton; but in the mounds, camp sites, and refuse heaps hereabout they are very common. They seem to be of two general sorts: first, those which are perfectly *plain*, rough, and evidently moulded by the hands, generally of a dark brown color, and showing repeated heating; second, specimens of various forms, simply *ornamented*. These are relatively few in comparison with the first class, are of a lighter color, and generally show no signs of having been used. Barr has gathered these for some years. I have carefully examined all of his specimens.

⁹ Numbers 3, 4, 5, 9 of the field notes, of which the first three have the permanent Museum numbers 12-11, 12-12, and 12-13.

¹⁰ Number 12-11.

¹¹ They do not show any significant difference from other skulls from the Stockton area in the University Museum, either in appearance or measurements.—Ed.

Certain characteristics are common to both the plain and decorated balls. They are made from a yellowish clay slightly mixed with grit and are of forms and sizes easily moulded with the two hands; they are fairly well fired. Most of the specimens show that they have been fashioned by simple hand moulding; a few, while not exhibiting this fact unmistakably, could readily have been made in such a manner. In no instance has any specimen of this sort, either decorated or plain, been found associated with the bones of a dead person, in, or near, a grave, or in general in such a location as to lead to the belief that these clay balls were highly regarded or buried with the dead. On the contrary almost all of them have been found in, or near fireplaces, refuse heaps, abandoned camp sites, etc.

Of the plain variety, the enormous numbers of fragments and goodly quantity of perfect specimens all show repeated heating and cooling, and their presence in the refuse heaps and ash pits leads to the belief that they were purely utilitarian. When it is remembered that the soil for miles around is quite free from stones of size usable for cooking stones—a pebble the size of a hen's egg is large and rare—and when we recall the very important place that cooking stones held in the domestic economy of the California Indian, an explanation of these clay balls presents itself. Following the discovery that baked clay makes a very good substitute for stone would be the moulding and baking of suitably sized masses of clay for use as cooking stones. Repeated heating and rapid cooling soon cracks fired clay, hence the large number of fragments.

The decorated and unused specimens are but the next step in the process of evolving manufactured articles from this comparatively newly discovered material. I think they were not made with any special purpose. They seem to me rather the expression of the fortuitous moulding of the pliable clay in the hands of one whose occasional occupation was the making of balls to be used for cooking stones. The shapes are truly primitive, as, for instance, a mass about equal to that of the ordinary cooking ball flattened and rounded by patting between the hands and decorated by simple indentation with the finger nail or with a twig.

Idle effort having once demonstrated the possibilities of the easily worked clay, directed effort might produce many forms and lead eventually to the development of the potter's art. I cannot but look upon these simple objects of baked clay as exceedingly interesting specimens, representing, as they seem to, a preliminary step toward the discovery of true pottery.

THE HISTORY OF NATIVE CULTURE
IN CALIFORNIA

BY

A. L. KROEBER



THE HISTORY OF NATIVE CULTURE IN CALIFORNIA

A. L. KROEBER

Now and then it seems permissible for the student to leave off his daily association with specific facts and rise above them on the gyroscope of his imagination to discover if a broader view may not give him new insights into their relations, or alter his conception of their setting in the larger landscape of nature as a whole. Such flights indeed appear almost incumbent on him at intervals if his occupation with his materials is close and unremitting. The requirement which integrity imposes on these ventures is that knowledge and fancy, fact and fabrication, be kept as distinct as possible, lest one come to pass for the other. The present essay is such a soaring of hypothesis. While it starts from the solid ground of twenty years of inquiry into the culture and speech of the Californian aborigines, it pretends to no greater validity than any summary, undocumented, historical reconstruction may claim.

FORMER CHARACTERIZATIONS

A number of early travelers and residents have left pictures of the Californian tribes they knew, without having come into contact with the inhabitants of any larger portion of the area. The first broader description, the well-known *Tribes of California* of Stephen Powers, deals with nearly all of the groups north of the Tehachapi Mountains. Powers wrote from observation and possessed to a high degree the journalist's faculty of rapid perception and vivid presentation. In spite of some overdrawing, his work remains unsurpassed as a delineation of California Indian psychology. Some of his characterizations of groups are unusually felicitous. His survey was however too rapid to allow of the assemblage of a sufficient number of exact ethnic data for systematic study.

Several years after the foundation of the Department of Anthropology at the University by Mrs. Hearst, I attempted, in volume

two of this series, a review entitled *Types of Indian Culture in California*. In its outlines this classification seems to have been generally accepted, although accumulating knowledge has resulted in some revisions and considerable shifts of emphasis.

Sixteen years later, in the seventeenth volume of the present series, I returned to the subject with an essay on the culture provinces of California. By this time, enough information had become available through studies of members of the University and others to make possible not only a fairly accurate delimitation of the areas of distinctive culture within California, but an appraisal of the relation of these areas to the generally recognized larger culture areas of America and an indication of the focal centers within the areas. The findings were embodied in two maps, the principal features of which are consolidated and embodied in the map herewith.

All this has been a labor first of accumulation, and then of classification. The unraveling of sequential developments in California has heretofore been attempted chiefly for restricted areas or limited aspects of culture. Yet every natural classification contains within itself, so far as it is sound, genetic indications. Recognition, for instance, of the affinity between the culture of northwestern California and that of the North Pacific Coast, or again between those of southern California and the Southwest, long ago forced the inference of a flow of cultural elements or stimuli from these more remote regions into the affected parts of what is now California.

At the same time, there would be something summary and short-circuiting in viewing these Californian tracts as mere reflections or extensions of extraneous culture developments. They are actually in juxtaposition to other local culture types which have been little affected by the remote centers, or at least not so specifically; and which have undergone their own growth on the spot. Local interrelations may not be lost sight of because of the presence of foreign influences —should, in fact, be the first to be accurately determined.

PROBLEMS OF DEVELOPMENTAL SEQUENCE

It seems worth while therefore to endeavor to discover how far it is possible to go in the direction of tracing the development of culture in the Californian area on the basis primarily of its own data. Such a limitation would be arbitrary if regarded as leading to final conclusions. The attempt has, however, the advantage of operating

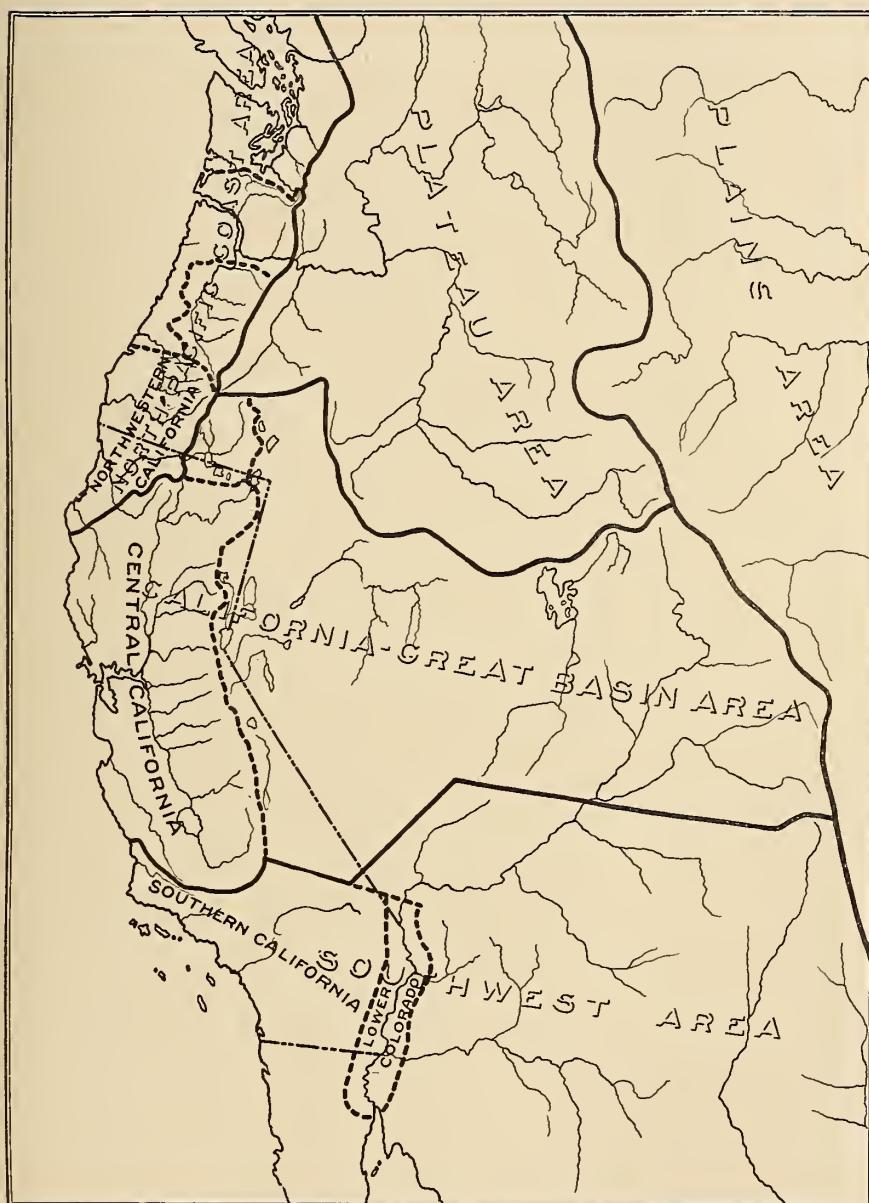


Fig. 1. Areas and Sub-areas of Culture in and about California.

intensively; and such distortions of perspective as ensue will readily enough correct themselves on being brought into relation with the interpretations of our knowledge of other areas.

As a first step toward the conversion of the local ethnic data from their merely spatial relations into temporal ones, I have assembled a number of facts in the appended diagram. The idea of this diagram is to suggest geographical relations by horizontal arrangement, temporal relations by vertical disposition. Of course, the arrangement in both directions is necessarily somewhat rough. Also, the number of culture traits selected is only a fraction of those that might have been chosen; but it includes those whose nature or distribution seems most significant. Data for whose placement in this diagram no warrant is found in previous publications are discussed in more detail in a recent essay on *Elements of Culture in Native California*, in volume 13 of this series, and in a handbook on the Indians of California in press with the Bureau of American Ethnology.

The genetic assumption which underlies the arrangement of elements in the diagram is that, other things equal, widely distributed traits are likely to be ancient; locally limited ones, of more recent origin. Obviously, this assumption may not be adhered to too rigidly: other things never are equal, or we often cannot be sure that they are.

For instance, had the ghost dance of fifty years ago been included in the tabulation, its place therein, on the basis of its fairly wide occurrence, would have been below the two peaks representing the culminations of the northwestern and central cultures; but on the basis of its known recency, overlying them. It is conceivable that a similar influence, institutional, mechanical, or religious, might have been only a very few centuries older than the ghost dance, just far enough in the past to be undocumented by history, and have left permanent residua in the culture of the same two provinces. In that event, it might have been entered, according to the plan followed, in a fairly low portion in the table, at a point representing an antiquity of perhaps several thousand instead of only a few hundred years.

Another factor which is likely to vitiate conclusions drawn too mechanically from a diagram like this one is the origination of elements wholly outside the Californian sphere. The sinew-backed bow is a case in point. It is now generally accepted that this bow is only an abbreviated form of the composite Asiatic bow, which is

		NORTHWESTERN	CENTRAL	SOUTHERN	LOWER COLORADO
Localized Cults	Hesi Cults	Chungichnish Cult		Song-Myth Cults	
Pre-human Race	Feathered Basketry	Ground Painting		No Sweat-House	
New Year Religion	Kukuu Religion	Tolooche Religion		Dreaming Religion	
Property Law	Creator Concept	Coiled Cap		Agriculture	
Non-Tribal Society	Nameless Tribelets	Basketry Water Bottle		Tribes	
Plank House	Mother-in-Law Taboo	Dying God Concept	Pottery		
	Sinew Backed Bow				
Salmon Ceremony		Moieties		Non-Local Clans	
Shaman's Training Dance		Mourning Ceremony			
Shaman's Spirit Pains		Totemism			
Hoppered Slab Mortar		Metate			
Overhanging Twinning		Coiled Basketry			
	Girls' Adolescence Ceremony				
	Sweat House				
	Taboo of Name of Dead				
	Twined Basketry				
	Mortar				

built up of layers of sinew, wood, and horn. In the eastern hemisphere, the composite bow is at least three to four thousand years old. There is little doubt of its having been carried into America and applied there in simpler form. It must then have been used first in the northwest of the continent and been diffused southward and eastward. Its Californian distribution represents only a minute fraction of its total distribution. Clearly, the history of the sinew-backed bow could not possibly be solved from a consideration of the facts of its occurrence within this limited region. The answer to the question of when it was first used in California depends in part on evidence that ranges from California through Alaska and Asia to Egypt.

Still, the facts of the bow's distribution within California have their significance, however abridged; and set by the side of facts concerning culture traits of less sweeping range, and still others which are wholly limited locally, a synthesis can result which will yield at least a tentative set of conclusions available for matching against the broader but less intensive syntheses built up on the consideration of data involving whole continents.

In any event, the diagram is valid so far as it presents the facts. Their meaning is another story.

With a clear realization, then, that at this point we abandon indubitable record for speculative interpretation, let us proceed in the reconstruction of the development of native civilization.

This civilization may be conceived as having run a course in four distinctive stages. The first period recognizable would be one of a simple culture with scant regional differentiation. In the second era, influences from the coast farther north and from the Southwestern plateau began to creep in, and the culture took on one color in the northern third and another in the southern two-thirds of California. A third period was that of the differentiation of the four cultures known to us. In the last period, which continued down to the time of Caucasian settlement, these local cultures attained their historic forms.

FIRST PERIOD: RELATIVELY SIMPLE AND UNIFORM CULTURE

The people of this era almost certainly comprised the ancestors of the modern Hokans, perhaps of the Penutians. Algonkins and Athabascans are more doubtful; Shoshoneans had not yet entered. Among the Hokans, the Yuman division may still have been in touch with its congeners of the central Californian district; at any rate its

habitat was scarcely that of the present. The northern Hokan divisions—the ancestors of the Chimariko, Karok, Shastan groups, Yana, Washo—were more widely spread than now.

The culture of all these peoples rested essentially on a food supply of seeds, especially the acorn, helped out by mollusks on the coast, fish, small game, and deer in the interior. The plant foods were crushed with stone pestles in stone mortars, stored, prepared, and cooked in baskets of twined weave, much as now. Wickerware, which is little used at present, may have been made then. Weirs, traps, and nets were worked in textile and cordage processes. The nets ran to rather large seines, weighted by stones. The fishing harpoon with detachable head, and the rush balsa, may have been already known. Wood was worked, at least split, with horn wedges; implements made of it must have comprised self-bows, and perhaps clubs, tubular tobacco pipes, and food stirrers.

The sweat-house is likely to have been in use much as we know it: a permanent structure, fire-heated, entered nightly. To have served its purpose adequately, it could scarcely have been other than earth-roofed. The construction may therefore have been applied also to dwellings; but in the main houses were probably of bark slabs or thatch on a frame of light poles.

The dead were buried, perhaps cremated here and there. They were feared more for their physical contacts than as spirits. Their names were not uttered. There was also a prejudice against the free use of the names of the living. Birth taboos were observed.

The principal dance, besides one of triumph over the heads of fallen foes, was that held for every adolescent girl, who endured a series of restrictions during the rite. For instance, she might not scratch her head nor eat meat. Religion was influenced largely by shamans who derived their power from actual or fabulous animals or celestial phenomena. They may have possessed stone charms. Besides curing and causing disease, they attempted to produce abundance of food, for the community as well as themselves; but these efforts were as yet unaccompanied by communal rituals.

The people lived without exogamic divisions, under chiefs who headed groups of kinsmen or small bodies united by co-residence. So far as descent was weighted at all, which was not often, it ran in the male line. Polygyny was tolerated and practiced. A man married his wife's sister or kinswoman, before or after her death; the widow married her husband's kinsman.

SECOND PERIOD: NORTHERN AND SOUTHERN INFLUENCES

Culture elements from the coast to the north and the interior highland to the southeast of California now began to penetrate. In each case they were worked into the existing culture. The northern influences seem to have been earlier and more effective, so far as they reached; but they scarcely affected more than the northern third of the area. Over this third, culture was comparatively uniform.

The northern house in this period commenced to be of frame construction, though still rudely made of bark slabs rather than planks. Some form of canoe must have been in use. Along with it, skill in wood-working developed. Basketry was commencing to refine on its old basis of twining. Possibly ornamentation in overlaying was practiced. At any rate, basketry was being put to special uses—cradles, caps, and the like. A woven hopper on a slab replaced the mortar. Shamanism was taking on a character of its own. The shaman's power was no longer derived so much from animals as from intangible spirits of localities. The novice in the art was aided by older men in a shaman-making dance. Shamanistic food-supply rites were slowly being elaborated, especially in connection with the salmon run. Society remained as unorganized as before, but possession of property and public influence were beginning to be correlated, and marriage was by purchase.

The Athabascans or Algonkins or both are likely to have entered northern California in this era; perhaps the Penutians were spreading along the Sacramento drainage. As a result of these movements, the Hokans were shifted and separated. The Athabascans came from the north; but, moving more slowly, or at least more intermittently, to judge by the preponderance of precedent, than knowledge and institutions diffused, they were not, in all likelihood, so much the carriers of the new elements of culture that were pervading northern California, as newcomers who found themselves in familiar social environment. The Algonkin ancestors of the Yurok and Wiyot are likely to have come down the Klamath. This movement would bring them out of a hinterland at a time when lapse and remoteness had deprived them of eastern Algonkin culture. Thus they too could not well have contributed much of novelty to the life of the region they were entering.

In the larger southern two-thirds of California the populational movements were less intricate. The Shoshoneans were probably spreading out of the Great Basin across the deserts toward the coast. They may have reached the ocean toward the close of the period. Here and there bodies of them that had come into intimate advance guard contacts with aliens were specializing their speech to become the ancestors of groups like the Tübatulabal or Cupeño. Culturally the Shoshoneans carried little into California: they could have had but little in the Basin. They did separate the southern from the central Hokans; and the break between the central and northern Hokan groups by Penutians may also have been effected during this period.

Most of the new civilizational elements in south and central California that can be assigned to the second era have Southwestern affiliations. They were of course not specific Pueblo elements. Pueblo culture was only beginning to organize; and even when organized it has never evinced a power of radiation equal to the degree of its development. Southern and central California at this time may be assumed to have used the unshaped metate alongside the mortar, and to have sewn coiled basketry. On the southern coast, shell beads began to be made in variety, and canoes were employed. Soon after the islands were reached and settled, the steatite industry may have had its inception, both as regards the manufacture of vessels and possibly also of ceremonial objects and ornaments. The beginnings of totemic sib organization perhaps fall in this period. Whether this took the form of moieties or clans, and whether these were exogamic or localized or not, is difficult to say. The emphasis is likely to have been on the totemic rather than on the organizational aspects of the system. In such groups as recognized descent, this was patrilineal. Shamanism had reached a stage of loose associations or public performances of coöperating individuals of the type of the rattlesnake ceremonies and shamans' contests of the San Joaquin valley in the historic period. Rattlesnake and grizzly-bear shamans were commencing to be differentiated. The public mourning anniversary took form in this era and may have begun to creep northward. With it there is likely to have gone an accentuation of death taboos and perhaps a greater inclination to cremate corpses.

THIRD PERIOD: DIFFERENTIATION OF LOCALIZED CULTURES

Populational movements on a large scale cannot be established for the third era. The Shoshoneans no doubt continued to press southwestward, and many minor shifts must have taken place in the welter of groups in the north. In the main, though, the territories of the greater linguistic blocks were commencing to approximate their present configuration. Culturally, the flow from the North Pacific Coast and Southwestern areas continued; but its effects remained more restricted geographically than before; because the imported elements now reached local cultures of some activity both in the north and south, and were there worked over before being passed on; and also because an independent culture was beginning to arise in the middle region.

In the northwest this local differentiation seems to have been most rapidly consummated, and to have become quickly established and correspondingly limited in geography. Consequently it is difficult to distinguish this period and the next in northwestern California. The pure type of plank house, the high esteem of property, exact valuations and laws connected with property, the use of compulsive formulas in religion, the attachment of rites to particular spots, the belief in a prehuman race in place of a creator, all must have evolved to an appreciable degree during the third period.

In central California, especially its northern portion in and about the Sacramento drainage, the vague shamans' associations began in this period to grow into the Kuksu organization: a formal initiation was instituted and spirits began to be impersonated. More or less connected was a development of mythology, in which increased coherence in accounting for beginnings was attained and the concept of a supreme creator began to grow clearer. On the side of arts, the culture failed to progress perceptibly, except in basketry; which was being made with added refinement and in techniques and styles that varied somewhat from region to region. Totemism, accompanied by a moiety system and more or less cross-cousin or other special forms of marriage, and here and there affecting rites, names, honors, or chieftainship, prevailed chiefly but not exclusively in the southern part of the central area. The mother-in-law taboo spread over the whole of it in this period.

South of Tehachapi, the narcotic jimsonweed or toloache (*Datura*) was beginning to be worked more significantly into religion, especially in connection with an initiating organization which was becoming too inclusive to be strictly shamanistic any longer. The ritual came to include in time the idea of the ground painting—the basic element of the altar concept of the Southwest. For some unknown reason—perhaps the barrier interposed by the lower Colorado tribes—the elaborate ritual costuming of the Southwest was not carried into California, or if so only feebly and soon to be lost. A simple standardized costume of feather skirt and head topknot came into use, to continue century after century with practically no modification. The developing jimsonweed ritual and existing mourning commemoration commenced to influence each other, the toloache cult concerning itself more and more with problems of human life and death and spirituality, and instituting special mourning rites for its members. From the Southwest, too, were derived tendencies to reckon the year calendar about the solstices; and to weld the bulk of each tribal mythology into a long, complex whole, beginning with the first male and female principles and continuing through a series of births of beings and a sort of national migration legend. The most conspicuous episode in this cosmogony was that of the death of a great god. This concept seems to have originated in Mexico and either to have passed by the ancestors of the Pueblos or to have been discarded by them because unconsonant with their ritual system.

The scheme of society fluctuated locally between recognition of moieties, clans, and totemism, without ever freeing itself from association with the idea of chieftainship. In material culture, the influence of the Shoshonean Great Basin began to be perceptible at this or that point. The water bottle of basketry, the cap, perhaps the carrying net, emanated from this quarter. Pottery making, which was perhaps not introduced until later, had its source farther south: the region of the Gila and Sonora rather than of the Pueblos is indicated.

Along the Colorado, the bottomlands proved to be capable of sustaining a fairly large population as soon as agriculture was introduced from the Pueblos or more likely from Sonora; and agriculture remained thereafter the permanent basis of civilization. Physiography and climate, however, confined farming to the immediate river, thus concentrating the population into a uniform belt and

marking it off sharply in customs from the inhabitants of the surrounding deserts and mountains. The narrowly localized and particularizing attitude characteristic of the remainder of California being effaced within the farmed tracts, settlements became fluid and lost their significance within true tribes. Had the civilization of these tribes been rich enough to support a real political organization, still further coalescence into a great nation might have ensued. As it was, they wasted one another in habitually sought wars, which absorbed much of their energy.

This growing emphasis on warlike undertakings did not interfere with the Colorado river tribes taking over from the New Mexican or Sonoran peoples such cultural elements as pottery, clan system, and prolix cosmogony, and passing them on to the groups nearer the ocean. For some reason, however, their military spirit and the civilizational distinctiveness enforced by their environment conflicted with other elements that came to them from the same source: the ground painting, for instance. These therefore traversed them without being able to make serious impression. Dreaming was evidently already established as the central idea and act in the religion of the river tribes. Why this should have been, we cannot see clearly. But the fact accounts for such elements as the altar, the dance, the recognized priest, not fitting in and therefore never taking firm root.

On the whole, then, the lower Colorado culture was the result of Sonoran influences being remodeled in a special environment. The product, compactly restricted within its physiographic confines, remained from an early date comparatively unreceptive to New Mexican influences, though without forming an impervious barrier to their spread.

FOURTH PERIOD: CONSUMMATION OF THE HISTORIC CULTURES

In this period North Pacific and Southwestern influences continued to enter California. But as they reached cultures of ever increasingly integrated organization, these influences were absorbed less and less directly. The characteristic event in Californian civilization in this era accordingly was the growth of its specializations.

The duration of this final period should not be under-estimated. In the sixteenth century Alarcon, Cabrillo, and Drake sketched the native life that they found in portions of the lower Colorado, southern California, and central areas. They did not of course describe with

minuteness nor enter upon intricacies or matters of organization. Consequently we cannot be sure how many of their more subtle and elaborate modern traits the groups in question possessed when visited by these explorers. But the picture for each locality tallies so perfectly, so far as it goes, with that presented by the historic cultures of the same spots, as to force the conviction that rather little development occurred in the three to four centuries that followed their visits. Twice that duration thus seems a conservative estimate for the length of this period.

In the northwest, these were the times in which finish in everything technological attained its modern degree. Forms remained less developed: the distance from the center of North Pacific Coast artistic achievement was too great, and central California had no examples to contribute. But the boat was refined with gunwales, seat, and prow ornament of local design; and polished horn was increasingly employed for objects whose material at an earlier time was presumably wood. The caste system hardened, debt slavery began to exist, marriage purchases became more splendid and more formally negotiated, a greater number of possessions and activities were given economic valuations. Treasures or money as such assumed a larger part in life, as compared with merely useful things: dentalium shells from the north, obsidian from the east, ornaments of woodpecker crests obtained at home. The dances, whose esoteric portion remained formulistic, afforded opportunities for the display of much of this wealth, thus rendering unnecessary a potlatch or credit system and perhaps preventing an introduction of this northern institution which might otherwise have taken place. The wealth in turn gave an added dignity to the festivals and enabled them to take on more definitely their ultimate character of world renewing or new year rites. The intensive localization of ritual, myth, magic, and custom was no doubt fostered in some measure by the assignment of economic and legal values to fishing places and nearly all tracts or spots that were specially productive. Fighting wholly lost the character of war and became a system of economically regulated murder for revenge. Any remaining vestiges of scalping or the victory dance disappeared, and the war dance of incitement and negotiation of settlement prevailed exclusively. The idea of spirits as guardians diminished to the vanishing point; disease and cure were thought to be concerned mainly with self-animate pain objects; and shamans of importance were now always women.

In the central area, totemic sib organization perhaps began to decay. If it developed locally, it was without vigor. In religion, the movement of the two preceding eras toward cult organization gained in momentum. The rather widely spread Kuksu impersonations grew more elaborate, their combinations into great dances more numerous and spectacular, the earth-covered dance houses larger. Initiation into membership now was twofold: preliminary and full. The foot-drum, split-stick rattle, and other paraphernalia, or such of them as did not go back to an earlier time, were introduced or at least associated with the Kuksu rites. In the heart of the area, about the lower Sacramento, a superstructure was reared on the Kuksu organization: the Hesi cult. The upper San Joaquin valley was scarcely influenced in religion. Its southward remoteness preserved more ancient forms of ritual, or exposed it to partial permeation by the southern California toloache religion. Throughout the central province, in fact, the hill and mountain tribes took over only patches of the valley culture. Elements of civilization were accepted by them rather freely, organization of elements scarcely at all. Even in the active hearth of the culture, progress was mainly along the line of organization, elaboration, and integration. Aspects of civilization that did not lend themselves readily to making over in this manner—shamanism, for instance, adolescence rites, and many arts—remained primitive.

In basketry alone must we assume a notable progress *per se*. But this occurred independently in several parts. The effect thus was, as it were, centrifugal. The Pomo, the Maidu, the Washo, the Yokuts, each developed their own styles, technically and aesthetically. Single rod coiling, lattice twining, feathering, bottleneck shapes, are concrete examples among many slighter indications.

In southern California there was also a differentiation. At least as far back as the preceding era the Chumash seem to have begun to develop a special technological expertness, the Shoshoneans an interest in mysticism. The islanders, who in historic time were of both stocks, participated in both movements. Santa Catalina held the principal steatite quarries and was in close touch with the most favorably situated of the mainland Shoshoneans. It became therefore a radiant point. From it emanated the Chungichnish religion, superposed upon the basic toloache cults much like Hesi upon Kuksu, though its stress was laid more upon the meaning of symbols than their form. This religion had something of a propagandist spirit, which did not

spend itself until after the introduction of Christianity, in fact was probably stimulated and possibly even induced by Christianity. World, birth, death, and soul mysticism flourished in belief and ritual. The basic world myth became more and more inclusive, the sacred ground-painting took on its special features that mark it off from the Southwestern altar painting. As in the Central province, shamanism, adolescence customs, and the like ancient institutions were little affected by these developments; only mourning rites grew ever more elaborate.

In the island and Chumash district the finest of the ornamental and ceremonial manufactures of steatite, hard stone, shell, and wood, as recovered by excavations, must probably be attributed to this late period. An increased refinement in the arts of basket making, feather working, and canoe carpentering seems also to have occurred.

Along the lower Colorado, two main events happened. The dream idea got such a hold on the culture as to associate itself with everything religious. Myth, song, shamanism, dance, were all stamped deeply with its pattern. They assimilated increasingly. Everyone dreamed similar narratives and songs and sang the latter almost indiscriminately for a festival or a mourning, to cure the sick or to celebrate a victory. Secondly, the rather meager culture became so fixed as no longer to digest what might flow in from the pure Southwestern tribes. The dream concept in particular was again influential in this civilizational self-sufficiency and introversion. Being essentially an emphasizing of individual experience obtained in a certain way, dreaming engulfed shamanism as a separate activity; prevented associations or organizations; forbade the adoption of ritual apparatus or even curtailed such as existed; and thus caused the river tribes to do without masks, significant dance costumes, symbols, priests, sweat-houses, or general use of jimsonweed. Even the mourning commemoration became or remained abbreviated.

CHRONOLOGY AND ARCHAEOLOGY

The least sound portion of a reconstruction like the foregoing is likely to be the dates assigned to it; yet the human mind hankers after the specific. The problem may therefore be considered. Ultimately, of course, the chronology of native Californian culture must be worked out largely in connection with the prehistoric chronologies that are gradually being built up for other parts of the world. There are two sources of local information which will contribute something.

One of these is the descriptions of the earliest Caucasian visitors to California, which, as already mentioned, extend back to between three and four hundred years and suggest that the local culture types of the present were already well established then, making it a fair inference that the fourth period has endured perhaps twice as long. Approximate as this fact necessarily is, it seems conservative, and furnishes some basis for estimating the length of preceding periods.

The second line of local evidence is furnished by archaeology. On the whole, this has yielded much more slender results as to sequences in California than in most parts of North America. In part this paucity of inferences is the result of the absence of pottery from the greater portion of the state, and its late introduction and lack of variety in the remainder. Retardation of insight is also due to the fact that while prehistoric objects are abundant in California, there is little evidence of stratification; in fact, practically no indication of different cultural types being represented within the same area. It is true that portable mortars, for instance, are found everywhere in the state and that many of the tribes in the historical period no longer used them. But the very universality of the prehistoric distribution renders it difficult to interpret this change in terms of time. Most of the archaeological material, further, has been collected without much attention to depth, position, or collocation. It is almost inconceivable, for instance, that the fairly high types of stone and shell work of the Santa Barbara region could have been made in their full development from the time of the first settlement of the islands. One cannot rid himself of the feeling that the data for distinguishing two or more phases of local culture sequences could have been obtained. Yet it is clear that either the collections formed were assembled without recognition of the historical problems which they might help solve, or that the conditions of their deposition have been exceptionally unfavorable for science. It is still possible that some of the few remaining larger sites in the Santa Barbara region may yield the key of stratification. If not, it will be necessary for the future to attempt to sift out something from the available data by an intensive study of types and the consideration of such information as is available as to their association.

In the San Francisco bay region, certain of the shell mounds had a very considerable depth—thirty and more feet—and have been partly excavated under methodical supervision. The first exploration of this sort, reported by Uhle, does indeed emphasize a considerable

developmental sequence within the mound. The total quantity of objects, however, is small; and I have repeatedly gone over the collection without being able to satisfy myself of any marked cultural changes having occurred in the long period during which the mound accumulated. There is no question that the finer and better made pieces came from the later strata. But it is quality and finish that are involved, rather than new types.

The authority best fitted to pronounce a verdict on this point is Nelson, who excavated several of the larger mounds and has had by far the fullest experience in examining both large and small ones along the ramified shores of San Francisco bay. He has been extremely hesitant in formulating an opinion as to the degree of change indicated by the remains. This hesitation may in itself be taken as an indication that the changes are rather slight. If there were obtrusive ones, he would unquestionably have long since set them forth. I have access to Nelson's data, including his preliminary tabulations of types of artifacts classified according to depth, and am in charge of the mound collections made by him and others. I am unable to see any important alterations in the culture from the earliest to the latest shell mound period. There are indeed distinctions, and there is no question but that the upper strata are by far the richest culturally. But the principal types—whether they be pestles or specialized forms like charm stones or imported materials like obsidian—occur in all strata.

Another consideration of importance in this connection is that artifacts characteristic of a region have been discovered only within that region. There are well marked types found respectively around Humboldt bay, San Francisco bay, the San Joaquin delta, the Santa Barbara channel: they do not extend beyond these areas. If these idiomatic types, if such an expression may be pardoned, are of comparatively late origin, say during the third and fourth of the periods that have here been outlined, this local restriction becomes not only intelligible but significant. We should however in that event expect to find in these areas separate depositions of earlier objects different from the later specialized ones and perhaps fairly resembling those of the other areas. But here is where the evidence leaves us in the lurch. And it seems impossible even to say whether the evidence is actually non-existent or is merely unknown to us because of lack of discrimination in exploration.

One help, however, can be derived from archaeology: an estimate of absolute age. Nelson, following a method of computation which it is not necessary to recount here but which seems at least reasonable, has arrived at the conclusion that some of the deeper San Francisco bay mounds must have begun to be inhabited from 3500 to 4000 years ago. Gifford, in a subsequent examination of the mound constituents, with special reference to the ash content, came to a conclusion that approximately corroborated Nelson's finding, or at least presented no obstacles to its acceptance. Here then is a datum, however tentative, which may help us out for our beginnings, as the discoverers' voyages aid us for the last period. If we assume Nelson's 3500 or more years, and take for granted further that, in accord with precedent elsewhere, Californian culture tended to develop somewhat faster as it grew more advanced, the first of the four culture phases might be set roughly in the time between 2000-1500 B.C. and 500 B.C.; the second as continuing from about 500 B.C. to 500 A.D.; the third until approximately 1200 A.D.; and the fourth from then on.

This does not of course place the beginning of all culture in the area as late as 4000 years ago. The first occupation by man may well have occurred more than twice as long ago. In other words, our "first" period is almost certainly not the original one. It is the first that is fairly recognizable in the present state of knowledge.

What seems to be especially needed, not only for the firmer dating of these eras but for their more accurate and reliable recognition, is further archaeological evidence. The actual facts on the prehistory of California must be much more intensively studied and integrated than they have been, and very likely supplemented by future exploration, before they will be of much use either in corroborating or in correcting the sort of hypothetical reconstruction of prehistoric culture which has been attempted here mainly on the basis of ethnology.

THE CULTURAL CONNECTION OF CALIFORNIAN
AND PLATEAU SHOSHONEAN TRIBES

BY

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THE CULTURAL CONNECTION OF CALIFORNIAN AND PLATEAU SHOSHONEAN TRIBES

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A cursory survey of the cultures of California and the Shoshonean region to the east suggests a basic and ancient connection between them. Very little has been published regarding the Plateau or, to use Barrett's term, Basin Shoshoneans. Since I have had an opportunity to visit a considerable number of their tribal and subtribal groups, I venture to set forth observations on a number of points, all relating to non-material culture, which seem to have a bearing on the cultural relations of the two regions mentioned, or at least on the probable antiquity of a recorded custom in either.

MENSTRUAL CUSTOMS

The custom of segregating an adolescent girl, as well as an older woman, during the menstrual period is widely diffused among the Shoshoneans and must be reckoned an ancient trait of the stock. Among the Lemhi of Idaho the usage was still rigorously observed in 1906. Comparison with neighboring Plains tribes, such as the Blackfoot, Crow, Gros Ventre, and Arapaho suggests that while menstrual restrictions of some sort may have been universal in North America there was a definite line of cleavage, probably coterminous with the eastern boundary of the Shoshoneans, which separated tribes stressing the relevant taboos from those which attached less significance to them. This statement cannot of course be taken in an absolute sense, for the Omaha, to cite a single instance, had the menstrual hut and very definite regulations associated with it. Nevertheless, broadly speaking, the area of intensive menstrual taboos seems to begin immediately to the west of the Plains and to extend to the Pacific.¹

¹ R. H. Lowie, Notes on the Social Organization and Customs of the Mandan, Hidatsa, and Crow Indians, *Anthr. Papers Am. Mus. Nat. Hist.*, **xxi**, 93, 1917.

Relative intensity is of course a somewhat elusive thing. It can safely be stated, however, that in the concrete observances clustering about woman's periodic illness the Far Western tribes are rather clearly set off from those living eastward. One feature that more especially allies the Shoshoneans with the Californians is the rule that a menstruating woman shall not eat meat. I have noted this for the Wind River and Lemhi Shoshoni, the Paviotso, the Northern and Southern Ute, and the Shivwits Paiute.² So far as I can learn, the Omaha women, though eating apart, were not subject to dietary restrictions and those of the Yuchi are known to have eaten meat in their retreat.³ On the other hand, corresponding though not identical rules for adolescent girls have been reported from the Thompson River Salish, and among some of the Northern Athabaskans (Carrier ?), the women are said to have lived on dried fish during their seclusion.⁴

In California the use of a head-scratcher by a girl during the puberty rite is distributed from the Yurok in the north to the Diegueño in the south. I did not make specific inquiries on this point, but the lack of evidence from any of the groups visited indicates that this feature cannot have figured so prominently as among the Californians. It must, however, be noted as a significant fact that after the birth of a child both Ute parents were required to employ a scratch-stick, for a mutual influence of parturition and menstrual observances is not only a priori conceivable but is definitely established for the Lemhi and the Southern Ute. The latter make the expectant mother abstain from meat, while the former have her retire to a menstrual lodge. Accordingly, the occurrence of a head-scratcher after confinement renders plausible the use of the same device as a catamenial implement. This, however, is merely a provisional hypothesis. From the point of view of Californian relations it is more significant that the head-scratcher is definitely linked with the puberty rite of the Nootka, the Thompson River Indians, and the Tahltan.⁵

² The people spoken of as Paviotso in this paper are those designated in volume x of this series and elsewhere in this volume, as Northern Paiute. The Shivwits and Moapa are subdivisions of the Southern Paiute, who are dialectically affiliated with the Ute and are to be distinguished from the Northern Paiute or Paviotso.

³ J. O. Dorsey, *Omaha Sociology*, 3d Ann. Rep. Bur. Am. Ethn., 267, 1884. F. G. Speck, *Ethnology of the Yuchi*, Anthr. Publ. Mus. Univ. Pa., i, 97, 1909.

⁴ J. Teit, *The Thompson Indians of British Columbia*, Mem. Am. Mus. Nat. Hist., II, 312 ff., 1900. A. G. Morice, *The Canadian Dénés*, Ann. Archaeological Rep. (Toronto), 218, 1906.

⁵ E. Sapir, *A Girl's Puberty Ceremony among the Nootka Indians*, Trans. Royal Soc. Can., VII, 79, 1913. G. T. Emmons, *The Tahltan Indians*, Anthr. Publ. Mus. Univ. Pa., IV, 104, 1911.

The last-mentioned tribe shares with more eastern fellow-Athabaskans of the North⁶ the notion that menstruating women exercise a malignant influence on fishing or hunting luck. So far as I know, this feature is not prominent among the Shoshoneans, yet the Southern Ute justify the meat taboo by the evil effect on the hunting luck of a transgressor's husband.

Since the southern half of California was in appreciable measure the home of Shoshonean tribes, the question arises whether or not a peculiarly close bond links the adolescence and other menstrual customs of the Plateau people with their congeners to the south and west. This assumption must be negated. The resemblances between the observances of the Cahuilla,⁷ e.g., and those of the Moapa Paiute or Southern Ute are of an almost exclusively generic character. On the other hand, three special features connect the Plateau with the non-Shoshonean tribes of northern California: the running of the Ute adolescent; the carrying of firewood obligatory among the Paviotso; and the bathing feature of the Paviotso. These features recur, respectively, among the Luiseño, Maidu, Achomawi, and Hupa; the Karok, Hupa, Shasta, Achomawi, and Maidu; and the Yurok, Hupa, Achomawi, Maidu, and Mohave. To these should be added the duration of the rite for five days or a number which is a multiple of five, the first menses leading to a ten days' seclusion among the Northern Ute and a five or twenty-five days' seclusion among the Paviotso. Since the custom of duration for five or ten days does not seem to extend beyond the Maidu, our comparison leads to the conclusion that the affiliations of the Plateau Shoshonean menstrual customs are predominantly with the northern Californian equivalents. On the other hand, the Californian usages display genetic relations in two directions, not only eastward but also northward well into British Columbia, as witnessed by the distribution of the head-scratcher.

BIRTH CUSTOMS

According to Kroeber, practically all Californians practice a modified form of the couvade, both parents being subject to a number of restrictions on the birth of a child. The weakest development of the usage is in the northwestern part of the state.

Several of the Plateau Shoshoneans share the couvade of the Californian pattern. The Moapa abstained from sexual intercourse

⁶ S. Hearne, *A Journey to the Northern Ocean* (London), 314, 1795.

⁷ L. Hooper, *The Cahuilla Indians*, present series, xvi, 347, 1920.

for a month or more, during which period neither parent ate any meat. Further, as soon as the father heard of the child's birth he would run some distance and back again in order to secure longevity for himself. The Southern Ute mother must remain indoors and abstain from meat and cold water for a month, while the same regulations extend to her husband for four days. If a man drank cold water before the expiration of the four days, his teeth were believed to rot. He was further expected to run round the hills the morning after the birth lest he lose his luck in catching deer. Both parents were forbidden to scratch themselves with their fingers, a wooden stick being carried for the purpose, nor were they permitted to rub their eyes on pain of becoming blind. For several days after the birth of the infant its father must not ride horseback. The Paviotso father, like his wife, abstained from all flesh, piled up wood for twenty-five days, and assumed all his wife's household duties.⁸ Among both the Lemhi and the Wind River Shoshoni, the parents abstained from meat for several days before the birth, the wife's fast being continued for a month in the Wind River group.⁹

So far as I know comparable customs do not occur in the region to the east of the Plateau.

Since the material on other natal customs is fragmentary and negative evidence accordingly counts for little, all the Plateau Shoshoneans are best compared as a group with the Shasta-Achomawi and Maidu.¹⁰ Of the Californian features, the following have been recorded: the menstrual hut as confinement lodge (Northwestern Maidu, Shasta; Lemhi, Wind River); scratching-stick (Shasta; Southern Ute); paternal wood-gathering (Shasta, Achomawi; Paviotso); change of cradles (Shasta; Paviotso); five-day taboo period (Shasta, Valley Maidu; Paviotso). On the other hand, the taboo against the mother's drinking of cold water and the practice of placing her in a pit are shared by Southern Ute and Cahuilla.¹¹

⁸ S. W. Hopkins, *Life among the Piutes* (Boston), 49 ff., 1883.

⁹ R. H. Lowie, *The Northern Shoshoni*, Anthr. Papers. Am. Mus. Nat. Hist., II, 214, 1909.

¹⁰ R. B. Dixon, *The Northern Maidu*, Bull. Am. Nat. Hist., xvii, 228-232; *ibid.*, The Shasta, *ibid.*, 453-456; *idem*, Notes on the Achomawi and Atsugewi Indians of Northern California, Am. Anthr., x, 217, 1908.

¹¹ L. Hooper, *op. cit.*, 351.

MORTUARY USAGES

The only Plateau Shoshoneans who sometimes disposed of corpses by cremation are the Moapa and Shivwits, who also practiced interment or deposited the bodies in the clefts of rocks. The Paviotso interred, and expressly deny having ever cremated, the dead. The Lemhi and Wind River Shoshoni preferably placed the corpse in the cleft of a rock. It is presumably not without significance that the only tribes which cremated are also those which in recent times adopted the South Californian mourning ceremony.

NAMES

The aversion to telling one's personal name has persisted among Californian peoples until the most recent times.¹² I encountered exactly the same reluctance among the Lemhi and Wind River Shoshoni. On the other hand, this sentiment seems to me to be far less pronounced in the Plains region. We are indeed told, e.g., that it is rude to ask a Blackfoot his name, yet "he himself seems free to speak of it on his own initiative."¹³ The Crow do not scruple to ask for one's name, the phrase *darás sak iō'* ? being a definite cliché. The Omaha, like the Blackfoot, regard it as exceedingly impolite to make such inquiries and altogether invested the name with a halo derived from its sacred gentile associations.¹⁴ Nevertheless I get the impression that even in this case there is a somewhat different feeling from that found in California and among the Shoshoni, where the emphasis seems to be less on the impoliteness of the query and more on the impossibility of an individual's himself divulging his name. Thus, a bystander among the Wind River is not forbidden to reveal the information sought.

As for the names themselves, there is some variation. What might broadly be termed the nickname style of designation occurred among the Lemhi and Wind River Shoshoni, the Ute, and Paviotso. But the Paviotso named the majority of their girls for flowers, and some of the Southern Ute names are said to be meaningless, as are those of the Moapa and Shivwits Paiute.

¹² R. B. Dixon, *The Northern Maidu*, 231.

¹³ Clark Wissler, *The Social Life of the Blackfoot Indians*, Anthr. Papers Am. Mus. Nat. Hist., VII, 18, 1911.

¹⁴ A. C. Fletcher and F. La Flesche, *The Omaha Tribe*, 27th Ann. Rep. Bur. Am. Ethn., 334 ff., 1911.

The name of a deceased person was tabooed in his kindred's presence among the Southern Ute. It is interesting to note that the free use of a dead individual's name is shared by the Wind River Shoshoni with the Arapaho, and among more remote Plains tribes with the Hidatsa.¹⁵

MARRIAGE

Though gifts and even purchase are occasionally referred to, bride-service figures far more prominently in the accounts of Shoshonean informants. As might be expected, initial matrilocal residence is linked with it, being explicitly ascribed, though not necessarily as an obligatory practice, to the Northern Ute, Paviotso, Lemhi, and the Wind River. One statement permits the inference that it also occurred among the Paiute.

The relative insignificance of formal payment for a wife stands of course in contrast to Northwest Californian usage, where bride-service and matrilocal residence appear as mere makeshifts for the orthodox institution of purchase.¹⁶ In this respect the Achomawi and Maidu come much nearer to the Shoshonean norm.¹⁷ It is interesting to find the Cahuilla uncompromisingly patrilocal, while the non-Shoshonean Yokuts are stated to be definitely matrilocal.¹⁸

Levirate and sororate are both reported from the Moapa, Shivwits, Paviotso, and Wind River Shoshoni; the sororate alone from the Northern Ute. In this instance, too much weight cannot be attached to negative evidence, of course. Probably both customs belong to the ancient Shoshonean culture. Although they are shared by nearly all the Californians, their occurrence is so wide that no specific historical inference can be drawn from this similarity. However, the general distribution of these institutions suggests a chronological conclusion of wider bearing. They are found more or less throughout the region of sibless tribes; they coexist in many cases with the sib organization; they are lacking among the Hopi and Zuñi. Since North American students are now agreed that the sib organization is a relatively late development, linked as it usually is with the relatively advanced economic condition of horticulture, it is reasonable to assume that levirate and sororate are earlier than the sib.¹⁹

¹⁵ A. L. Kroeber, The Arapaho, *Bull. Am. Mus. Nat. Hist.*, xviii, 17, 1902. R. H. Lowie, Notes on the Social Organization and Customs of the Mandan, Hidatsa, and Crow Indians, 50.

¹⁶ R. B. Dixon, The Shasta, 462 ff.

¹⁷ *Idem.*, Notes on the Achomawi and Atsugewi, 47; *idem*, The Northern Maidu, 239.

¹⁸ L. Hooper, *op. cit.*, 354. S. Powers, The Tribes of California, *Contr. N. Am. Ethn.*, III, 382, 1877.

¹⁹ R. H. Lowie, Primitive Society, 163 ff., 1920.

KINSHIP TERMINOLOGY

The phenomena of kinship terminology are strongly indicative of an ancient connection, whether direct or indirect, between the Basin and Californian areas. The most significant fact is that they share certain highly characteristic features which are wholly or virtually unknown in the more eastern region of the continent. A full comparison must be postponed until the publication of Mr. Gifford's complete survey, but the following data are worth stressing at the present time.

One of the most widespread features of the nomenclatures found east of the Rockies is the designation by a single term of the father and the father's brother, and the corresponding classification under one head of mother and mother's sister. This type of grouping, whether ultimately due to a sib organization or to the joint influence of levirate and sororate, is empirically found to be very frequently associated with exogamous sibs. But in California even a tribe like the Miwok, who are organized into exogamous moieties, only partly conforms to the norm: while üpü denotes father's brother and father alike, there are three distinct words for mother, mother's elder sister, and mother's younger sister, viz., üta, tomu (in one locality, ami), and anisü.²⁰ This failure to merge collateral with lineal kin in the first ascending generation is common to a number of Californian tribes. Thus, the Yokuts call the father natet (or vocatively, opoyo), the father's brother koymoish; the mother nazhozh (vocatively), ishaya, the mother's sister mokoi. The Washo denote the two parents as koi and la, while the parallel uncle and aunt are eushi and sha'sha. The Pomo have e (voc. harika) and te (voc. nika) for the parents, keh for the paternal uncle, tut and sheh for the mother's elder and younger sisters.²¹ From Gifford's unpublished records it appears that the Karok also distinguished between father, ākā or ifyu, and father's brother, pānāhī; as well as between mother, īta or tātetc, and mother's sister, djūkātc. The same authority's notes may be quoted for the Maidu. In each local subdivision the same differentiation appears. Thus, the Northwestern Maidu have kuli for father, kumi for paternal uncle; konti for mother, de for mother's sister.

²⁰ E. W. Gifford, Miwok Moieties, present series, XII, 172-174, 1916.

²¹ A. L. Kroeber, California Kinship Systems, present series, XII, 352 ff., 362 ff., 370 ff.

This use of distinct terms for parents and parallel uncles and aunts is eminently characteristic of the Plateau Shoshoneans. On this point my unpublished notes on the Paviotso confirm Kroeber's data for the same group, and I am likewise able to corroborate by independent observations in other local groups those of Sapir among the Kaibab Paiute and the Northern Ute.²² Suggestively enough, it is only the Shoshoni proper, with their contiguity to the Plains, who merge the unele and parent kin after the fashion of the Eastern systems. The Californians and Basin peoples thus form a unit set off against a vast area to the east of them. But it is clear that the total range of this feature is even somewhat larger, embracing the Chinook and some of the Salish.²³

To turn to another feature of kinship nomenclature. The differentiation of maternal from paternal grandparents is of such rarity in cismontane North America that Morgan does not provide distinct tables for them and especially comments on their discrimination by the Spokane. Elsewhere I have shown that this trait, far from being exceptional, is shared by some other Salish tribes and by the Takelma and Wishram, in addition to occurring in the Southwest.²⁴ Of the Plateau Shoshoneans all but the Paiute exhibit this feature, and even the Moapa distinguish at least the father's father and mother's father. Among the Ute, both Sapir and I find discrimination of female as well as male grandparents according to the sex of the connecting relative. Kroeber and I have independently obtained the same distinction from Paviotso informants, and it certainly is characteristic of the Lemhi and Wind River Shoshoni. But here again a feature that separates the Shoshoneans from the East links them with California. The Karok call either grandparent on the father's side atic, while the maternal grandparents are designated as gut and git. In Yuki the father's father is osh, the mother's father pit, the father's mother pop, the mother's mother tit, while the corresponding Pomo terms are madili, gach; mats, ghats. The Yokuts have a generic word for grandfather but distinctive terms for the two kinds of grandmother.²⁵ All divisions of the Maidu display complete differentiation. Thus, the Northwestern Mountain group has aam, pa; sakam, to; and the

²² *Ibid.*, 359. E. W. Gifford, Tübatulabal and Kawaiisu Kinship Terms, present series, XII, 245-247.

²³ R. H. Lowie, Family and Sib, *Am. Anthr.*, 28-40, 1919.

²⁴ R. H. Lowie, Historical and Sociological Interpretations of Kinship Terminologies, Holmes Anniversary Volume, 298, 1916.

²⁵ A. L. Kroeber, California Kinship Systems, 353, 370, 373.

Southern Maidu equivalents are aai, opa; saka, koto. Of the non-Shoshonean South Californians the Salinan and Mohave differentiate between paternal and maternal kin of the second ascending generation.²⁶ In short, the trait in question is widely distributed in both the Californian and the Basin regions.

A feature to a remarkable extent associated with the one just discussed is that of reciprocity. As I pointed out some years ago, reciprocal terms are largely lacking in the cismontane area and occur more or less conspicuously in the Southwest, California, and the Plateau area. By "reciprocal" terms I here understand those stems used simultaneously with little or no change for both of two correlative relationships, such as maternal uncle and sister's child. The word corresponds to Professor Kroeber's "self-reciprocal" or "verbally reciprocal." For the sake of definiteness and simplicity, I will confine consideration to the grandparental terms. In Wind River Shoshoni all of these are reciprocal: kō'nu means a man's son's child as well as father's father; gā'gu, a woman's daughter's child as well as mother's mother; dō'ko, a man's daughter's child and maternal grandfather; hu'tsi, a woman's son's child and paternal grandmother. Three of these very stems occur in Paviotso with minor phonetic alterations and the same meanings, while the stem mu'a' is an exact equivalent of gā'gu. In Sapir's Northern Ute list, all the four Shoshoni stems reappear, but the junior member of each pair of linked relatives is set off by a diminutive ending, e.g., qönun'¹, father's father; qönuntcin'¹, man's son's child. My Southern Ute informants did not differentiate in this fashion, but applied Sapir's longer form to both grandparent and grandchild. On the other hand, my Moapa Paiute nomenclature follows the Northern Ute pattern, at least for the paternal and maternal grandfather stems, and inferentially for the others also. The Kaibab and Shivwits have only two grandparental terms, since the sex of the connecting parent is not made a basis for discrimination, but they also fall in the same category with the Northern Ute.

Turning now to California, we discover a suggestive series of parallels. The Karok terms for grandparents cited above are strictly reciprocal; the Pomo ones, in the absence of distinctive grandchild terms, are at least sometimes used reciprocally. Though the Yana case is not absolutely certain for each of the words in question,

²⁶ R. H. Lowie, *op. cit.*, 341, 1916. J. A. Mason, The Ethnology of the Salinan Indians, present series, x, 170, 1912.

Sapir's discussion of two terminologies from this stock establishes a considerable measure of reciprocity.²⁷ The corresponding Yokuts designations are fully reciprocal; those of the Washo are likewise, but with a diminutive ending for two of the grandchildren.²⁸ According to Gifford's notes, there is a good deal of local variation among the Maidu, but, while in the Northeast only one grandparent term is reciprocal, all four are among the Northwestern Plains Maidu, and two among the Southern and the Mountain Maidu. Moreover, the distinct word *pe* given for daughter's child in the last two groups is suspiciously like the stem *pa* for mother's father. However this may be, the highly characteristic development of reciprocity must be reckoned a common trait of Basin and Central Californian terminologies.

MISCELLANEOUS

The mystic number of the Paviotso is undoubtedly five.²⁹ Whether or not this holds for the more southern Shoshoneans is not clear, but at Lemhi occasional references to five occur in ceremonialism and mythology.³⁰ This is a trait shared by some Oregonians, the Shasta, the Northwest Californians, and in some measure the Maidu.

As respects the practice of shamanism, the Shoshoneans to my knowledge differed from the Plains Indians in summarily killing a practitioner who had lost a patient. So late as 1912 I was able to observe the effects of this conception among the Southern Ute, for one fine evening a medicine man from Navajo Springs came driving up to Ignacio with his family to escape the vengeance of a dying patient's kin. This characteristic trait occurs also among the Shasta and the Miwok and seems to be widely diffused in central and southern California.³¹ In other respects there are interesting points of both agreement and divergence, though I cannot too strongly insist on the scarcity of information on this topic. Like the Californian shamans, those of the Shoshoneans acquired power through dreams; conscious quest of revelations, more particularly through fasting, is reported as having existed to some extent among such tribes as the Ute and the Shoshoni, but this is readily explained as a phenomenon due to contact with the Plains Indians. Disease is undoubtedly conceived as the consequence of the entrance of a pathogenic agent to be

²⁷ E. Sapir, *Yana Terms of Relationship*, present series, XIII, 156, 162 ff., 1918.

²⁸ A. L. Kroeber, *California Kinship Systems*, 353, 363.

²⁹ S. W. Hopkins, *op. cit.*, 13, 15, 47, 48, 50, 57.

³⁰ R. H. Lowie, *The Northern Shoshoni*, 217, 275 ff.

³¹ R. B. Dixon, *The Shasta*, 479. S. Powers, *op. cit.*, 354.

removed by suction (Ute, Lemhi, Wind River), but in addition we also find the conception that the patient's soul has departed and must be recovered (Lemhi, Paviotso).

Finally, I should like briefly to call attention to the affinity of Plateau and Californian mythology. The ease with which tales are transmitted and adopted is notorious and might deter from basing far-reaching historical conclusions on community of mythological plots. We must not ignore, however, the equally important fact that while some episodes have an enormous distribution others for no clear reason are never diffused beyond a rather definitely circumscribed territory. When two tribes agree in a large number of plots or share tales not reported from elsewhere, this fact has not a little historical significance. In addition should be considered the elusive flavor of a mythology that may or may not definitely align one people with a neighboring group.

Though my acquaintance with Californian mythology is unfortunately meager, the evidence already seems to me to demonstrate decisively that the Plateau Shoshoneans form with the Californians and presumably their northern neighbors an ultramontane group. Taking the Lemhi, who lived so close to typical Plains Indians, we find indeed a number of parallels to Plains Indian traditions, but neither their number nor their importance is impressive. Such resemblances as occur are readily balanced by others linking the Shoshoni with such groups as the Nez Percé, Kootenai, or Wishram. A most striking point is the paucity of references to buffalo, which by itself suffices to cast doubt on Brinton's theory that the Shoshoneans once occupied the area between the Great Lakes and the Rockies. On the other hand, several very important Lemhi myths and motives are characteristically Californian, as I pointed out years ago.³² "The Bear and Deer," "The Theft of Fire," "The Origin of Death," occur among the Maidu, as does the antagonism of Coyote as a marplot to a benevolent creator. All these are rather widely diffused in California. The two boys cutting mouths for mouthless people and Coyote's conquest of a woman whom no one previously had been able to marry represent motives shared with the Yokuts.³³ The story of the Weasel brothers, according to Grace M. Dangberg, is paralleled among the Washo. Even more important perhaps than specific resemblances is the agreement in general cast and spirit. This

³² R. H. Lowie, *The Northern Shoshoni*, 235.

³³ Kroeber, *Indian Myths of South Central California*, present series, IV, 205-209.

naturally is less tangible and is not easily defined, yet would probably be felt by every ethnologist in passing from the Plains mythologies to those of the Plateau and California. In part, it is probably due to the preponderance of animal stories rightly noted by Mason as a Shoshonean feature,³⁴ but the disparity in one direction and essential unity in the other cannot be reduced to so simple a formula. But, as in the case of kinship terminology, the affinities are not exclusively Basin-Californian; they must be understood to embrace the tribes of Washington and Oregon and to some extent of the Canadian Plateau as well.

CONCLUSION

With reference to a number of distinct traits of non-material culture, the Plateau Shoshoneans reveal far-reaching relations to the Californian peoples. A wider survey suggests that both these groups, together with other Far Western tribes, may perhaps be conveniently united as representing a single basic ultramontane culture area or stratum marked off from the remainder of the continent. This conception differs from one set forth some years ago by Professor Kroeber³⁵ in enlarging the area to be regarded in antithesis to the Eastern region, and supports his most recent assumption of many and significant bonds between California and the Basin.³⁶ I hope the preceding notes, fragmentary as they are, tend to negative the older view that "the Plateau cultures unquestionably appear very uncharacteristically Pacific in type." Not merely in concrete features but in the subtler flavor of their cultural settings, the ultra-montane peoples seem to me to belong together. The simpler representatives of this ultramontane group, stripped of special environmental adaptations, probably come as close as any Indians of recent periods to the primeval North American culture, and this fact, irrespective of the lack of color incident to rudeness, lends to their study a peculiar fascination. Kroeber conceives the higher Northwest Coast culture as a special structure reared on the pristine Far Western substratum. I am strongly inclined to extend this conception to the Pueblo area and to regard its culture as largely resulting from the superimposition on the primeval ultramontane layer of the horticultural complex originating to the south.

³⁴ J. A. Mason, Myths of the Uintah Utes, *Jour. Am. Folk-Lore*, xxiii, 299, 1910.

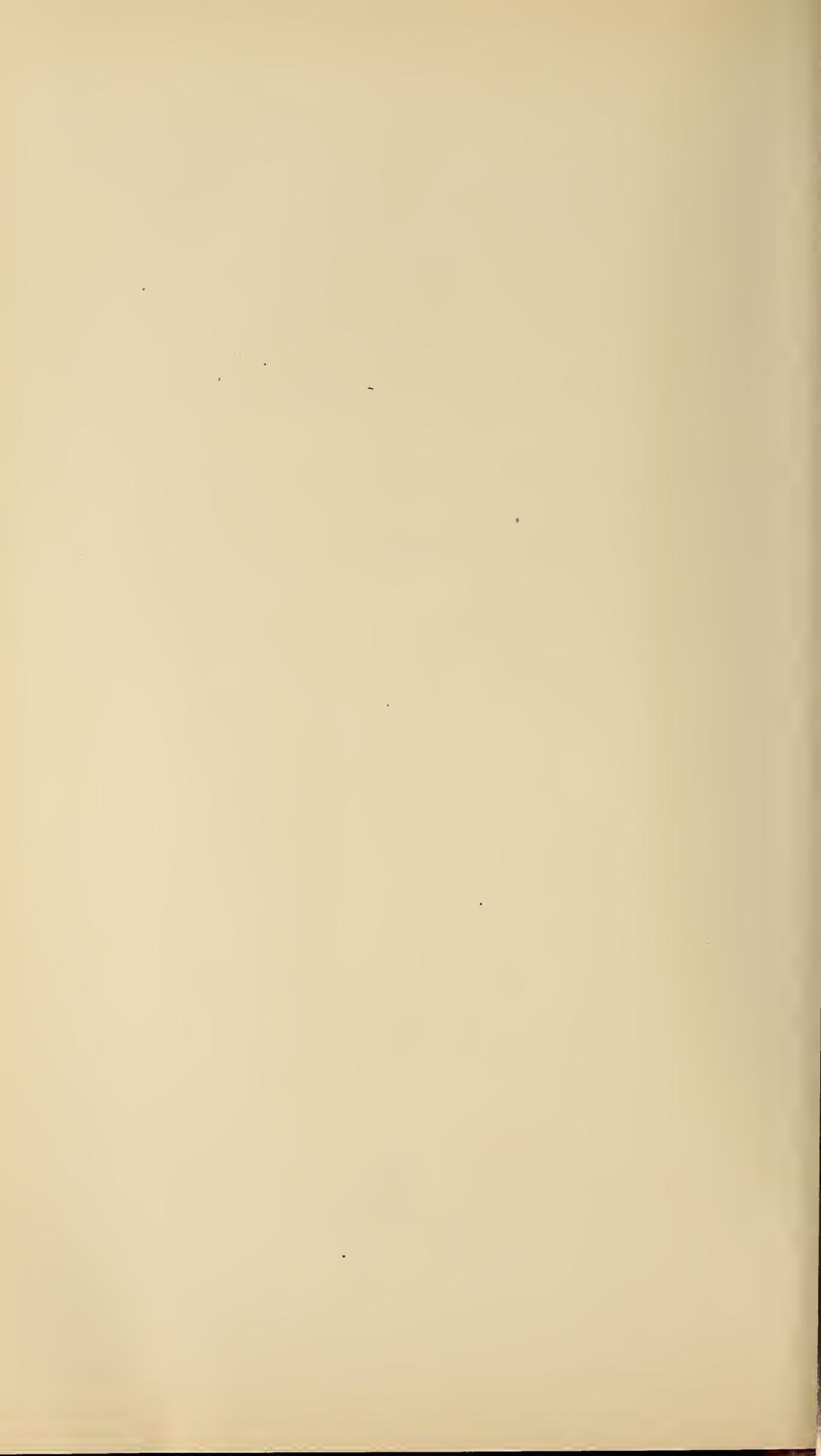
³⁵ A. L. Kroeber, The Tribes of the Pacific Coast of North America, *Proc. Intern. Cong. Am.* xix, 399, 1917.

³⁶ A. L. Kroeber, California Culture Provinces, present series xvii, 168, 1920.

PATWIN HOUSES

BY

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INTRODUCTION

The underground house of the Central culture area of California adheres to a general type over a comparatively large territory. Interesting and important differences in detail existed, however, not only between the house types representative of culture centers, but also between houses of distinctive usage within a given village. This has been duly illustrated by various authors,¹ but not to the extent of rendering any additional data void of interest.

The following paper is based upon information obtained from Tom Odock, chief of a Patwin rancheria situated about six miles north of the city of Colusa, California. The author became acquainted with the material here submitted during the months of June and July, 1917.

The data are patently incomplete. The informant could not remember many important names and details of technique. Nor could he be expected to give accurate estimates of dimensions. It was impossible to interview other informants in regard to this missing information as no other individual of sufficient age and memory is to be found at this rancheria who originally belonged to the cultural center which this paper describes.

I obtained additional data, however, by measuring three house pits found at a deserted village site two miles north of the rancheria. Two of these pits were those of dwelling houses; the other was that of a ceremonial dance house.

The area influenced by the house types herein described includes a strip of territory west of the Sacramento river, extending from Princeton, Colusa county, to a point several miles south of the city of Colusa. As all the villages mentioned by my informant bordered the river, the depth to which this cultural area extended inland is unknown.

¹ Stephen Powers, *The Tribes of California*, Contr. N. Am. Ethn., III, 1877; R. B. Dixon, *The Northern Maidu*, Bull. Am. Nat. Hist., XVII, 1905; S. A. Barrett, *Pomo Buildings*, Holmes Anniversary Volume, 1916; A. L. Kroeber, *The Indians of California* (in press as a bulletin of the Bureau of American Ethnology).

This area has been divided between the Wintun Central and Southeastern dialectic provinces.² The native information that I obtained here and in neighboring provinces, however, points to this area as a cultural if not linguistic unit, and likewise as an important center of cultural distribution. The term *pa'twin*, the common term used by these Indians in reference to themselves, is therefore applied for the sake of accuracy to the group treated in this paper.

Translations of native terms are designated by =; derivations by <.³

PERMANENT HOUSES

Patwin places of abode fall into two large classes, permanent houses and temporary structures.

Permanent houses were situated in groups at centers of convenience, easily protected and reasonably close to sources of such essential supplies as water, fish, and vegetable products. Such a group of houses constituted a village (*di'hi*).

GENERAL FEATURES

Relative positions within the village.—There were four types of houses, differing with the purposes for which they were constructed: (1) the dwelling house, (2) the sudatory house, (3) the menstrual house, and (4) the ceremonial dance house.

In general, the dwelling house had no particular placing relative to the position of other houses in the village. There were no streets or lanes as such to influence its position. Any space within the village limits, offering sufficient room, was considered a suitable building site. The one exception to this generality was that the chief's house always stood in the approximate center of the village.

The ceremonial dance house was situated on either the northern or southern outskirts of the village, usually from twenty to thirty paces from the other houses.

The sudatory house stood either east or west of the ceremonial dance house, its one door always facing the dance house.

The menstrual house held a position as far removed from the ceremonial dance house as possible. This rule placed it in either the northern or southern outskirts of the village.

² Map showing Native Tribes, Groups, Dialects, and Families of California in 1770, Department of Anthropology, University of California, 1920.

³ For phonetic descriptions, see my paper, Functional Families of the Patwin, present series, XIII, no. 7.

Features common to all houses.—All houses followed a general plan of structure, though the detail of respective types differed substantially.

An elliptical pit, nearly circular, with a level floor and perpendicular walls, constituted the foundation or floor for the house. This pit was from three to four feet in depth and varied greatly in width in the different types described below.

A retaining wall of brush thatch-work held in place the earth walls of the pit. The material used in this thatch-work was wormwood brush (*genus Artemisia*), called *keti'*. This was sustained in its upright position by stakes driven into the dirt floor perpendicularly at intervals of from five to eight feet, serving to press the thatch-work firmly against the earth wall. These retaining stakes (*yaiwe't*) were tightly bound to the thatch-work with grapevine creepers (*kap*).

Although house pits primitively were never more than four feet in depth, retaining walls invariably were from five to six feet in height. The effect resulting from this was an apparent pit-depth of five or six feet where the true depth was considerably less. The dirt removed from the pit was banked about the outside of the protruding rim of the retaining wall.

The common type of doorway (*p̄es*) consisted of a passage, about three feet in width and of varied but gradual degrees of slope, cutting through the wall and connecting the floor of the pit with the exterior land surface. The length of this passageway varied even in the same type of house, and is said to have been an unimportant detail. Passageways were lined by a continued protraction of the retaining wall, exteriorly banked with earth. A roofing of short cross-sticks, wormwood brush, and earth, deposited in the order named, covered the passageway. When finished, it had an inner opening about six feet high and an outer opening from three to five feet high.

From two to eleven substantial oak posts, forked at the top, were set up in post holes placed at proportionate intervals on the floor space. These house posts were generally called *to'u*.

The superstructure consisted of four elements, (1) the stringers, (2) the rafters, (3) the thatch reinforcing, and (4) the earth surfacing.

By stringers are meant strong oak laterals extending from top to top of the house posts, their ends resting in the culminating forks and fastened there with grapevine creepers. They were called *po'bi*.

Rafters were long poles, usually of willow or cottonwood, radiating from the crest of the superstructure to the edge of the house pit. Each rafter was placed with its smallest diameter at the top of the structure and its largest at the base. At the crest, where crossing the stringers and where crossing the retaining wall, the rafters were tied firmly in place with grapevine creepers. The tops of the rafters were overlapped and bound in a cluster. Where the center post was present, two sets of rafters were used, one radiating from the top of the center post to a circling line of stringers, another completing the arch from the stringers to the summit of the pit walls. This broken arrangement of rafters had the effect of arching the interior of the roof, due to the relative heights of the center post, the stringers, and the retaining wall (see figure 1). The native name for the rafters was *wa'yí*. The maximum interval between them was from four to five feet. Cottonwood and willow brush was laid transversely across these rafters to a considerable thickness. Although I have called this element the thatch reinforcing, the informant expressed uncertainty as to whether it constituted true thatch-work or merely a layer of brush.

The whole house from top to base was finally covered with an earth surfacing, a foot or more in thickness, packed down smoothly with the hands and feet of many workers.

An aperture, approximately square, was left near the crest of the superstructure to furnish an escape for smoke. This smoke hole (*č'i'ta*) was about two feet across. It was usually left open but might be covered in inclement weather with an ordinary tule mat (see page 166), fastened in place by means of small wooden pegs driven into the earth surfacing.

This type of house is said to have had the double advantage of being cool in summer and warm in winter.

Building methods.—The building of a house called forth the combined efforts of as large a number of helpers as could be engaged. Those houses used commonly by the entire village, the ceremonial dance house, the sudatory house, and the menstrual house, were jointly constructed by every available man, woman, and child in the village. Dwelling houses were built with the assistance of all the paternal relatives of the builder or builders. Since the dwelling house was a communal abode, sheltering from two to four household units, several men would engage their paternal relatives to assist in the construction of one house. Such services were not compulsory.

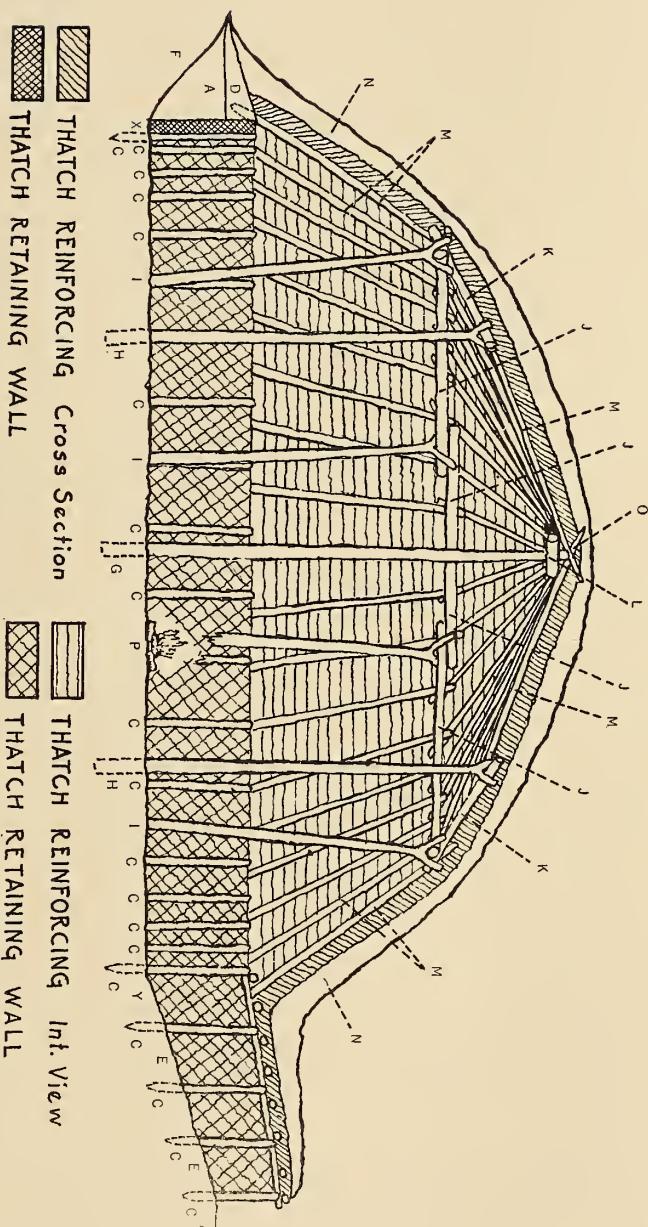


Figure 1. Vertical cross-section of the dance house. A. Exterior ground level. C. Retaining wall posts, *yainwē't*. D. Artificial embankment on exterior exposure of retaining wall. E. Sloping floor of main entrance. F. Sloping floor of back entrance. G. Center house post, *se'kən*. H. Front and rear perpendicular house posts, *to'u*. I. Four house posts on the north side, *po'bī*. J. Stringers on north side of house, *po'bī*. K. Stringers arching east and west ends of house, *po'bī*. L. Shoulders at near-top of center post. M. Rafters, *wayn*. N. Cross-section of earth surfacing. O. Clustered and tied ends of upper elements of rafters. P. Fireplace, *po*. X-Y. Floor level of pit.

The individual who was solicited to help usually complied from pressure of custom, providing some element of superimportance did not logically hinder. Thus, one undergoing the restriction of taboo (*sáno*), as in the case of a woman in menstrual confinement, would be excused from these duties.

Before digging the pit, wormwood, willow and cottonwood brush, and grapevine creepers in adequate quantities were gathered and brought to the building site by the women and children. The men at the same time cut and assembled the necessary posts, stringers, rafters, and stakes. The primitive tools and methods used in the cutting down of the large posts and stringers, often more than one foot in diameter, have been forgotten. An opinion was expressed, however, that an elkhorn wedge was the sturdiest implement used.

Early one morning after the gathering of materials had been completed, one and all began the digging of the house pit. The earth was loosened with sharp sticks, carried out in baskets, and dumped just outside the pit rim. Later this earth would be piled up against the exposed outer side of the retaining wall. Digging sticks were called *t'ok*. The baskets used as earth carriers are said to have been old food baskets (*ók*), rendered useless in their original capacity through wear.

When the pit had been completed the men dug post holes in the dirt floor and set up the house posts. If the house was to have a center post, that was the first to be erected. These posts were fixed firmly in place by tamping the filling at the base with the bare feet.

Meanwhile the women began the construction of the retaining wall, the children bringing the necessary materials into the pit. The stringers and rafters were placed and tied by the ablebodied men, and all hands joined to the extent of their individual abilities in the placing of rafters, thatch reinforcing, and earth surfacing. The earth for the surfacing, carried in baskets, was usually obtained from outside the village limits. This was avowedly done with the intent of keeping the village free from unsightly holes and uneven surfaces.

A house is said to have been built in one day, provided the materials had been gathered together on previous days. The completing of the structure was celebrated by a feast given by the interested households for the benefit of all those who had assisted. This feast, like other feasts given on various occasions, was called *bahiaiya'pai*.

THE DWELLING HOUSE

The dwelling house was called *qe'we*. The maximum diameter of the dwelling house pit is said to have averaged thirty feet. The two pits examined by the author measured respectively 18 by 22 feet and 23 by 28 feet. These data, though suggestive of a considerable variation in the size of dwelling houses, are much too meager to allow for conclusive generalizations. The filled condition of these pits prevented the determining of their former depth. The true depth is described as having been about 4 feet; the apparent depth, 6 feet.

Six house posts were set roughly equidistant from one another, forming a nearly circular ellipse about the floor center, and approximately halfway between the floor center and the walls. These posts were practically of equal height and leaned slightly away from the perpendicular toward the walls. One post stood directly before the door on the east side, one stood on the west side directly opposite the first post. The other posts took their positions relatively. The house posts supported six connecting stringers. Posts and stringers, with the earth breasting of the exterior side of the retaining wall, served as a foundation for the superstructure of rafters, thatch reinforcing, and earth surfacing.

One doorway, facing either east or west, served as entrance and exit.

The fireplace (*pø*), was situated in the exact center of the floor, equidistant from all house posts. The smoke hole was on the central south side of the roof, about six feet below the point of highest elevation.

Each of the several households sharing a *qe'we* occupied and held exclusive right to a definite part of the house. Such a division was bounded by imaginary straight lines radiating from the fireplace to the retaining wall. Each household cooked on its own side of the fireplace with its own separate equipment of cooking utensils, and ate separately. All households shared, however, the use of the mill (*čobo'k*). This mill consisted of an oak or cottonwood log from four to five feet in length, leveled on the top and bottom, offering a maximum thickness of one foot. The mortar cavity was placed near the center of the upper surface, its size and depth depending upon the amount of usage it had experienced. The common type of pestle used was simply a hard smooth stone, suitably shaped by natural agencies.

All other furnishings and household effects were owned and used exclusively by respective household groups or individuals within the group.

The most prominent article among the house furnishings was the bed scaffold (*ta'wai*). Its exact structure has been forgotton. It was, however, a rectangular frame, raised six feet from the ground by four corner posts. Cross-pieces of wood, tied to the framework, served as supporting slats. On this slatting was placed a bedding of green willow leaves, covered with tule mats six feet in width by seven or eight feet in length. Occasionally a bearskin rug furnished additional covering. In every house there were as many beds as there were adults, each placed with its longest dimension parallel to the radius of the floor circle. The outer end of the scaffold was attached to the retaining wall. One always slept with one's head toward the fire.

Individual seats in the *qe'we* consisted of rectangular tule mats each about six feet by four feet. All tule mats were called *satu't*. These mats were made from two varieties of tule, one circular and the other triangular in cross-section. The technique consisted of a close warp of tule bound together by a sparse twined woof of native hemp string (*ka'li*). Mats of similar technique, from other parts of California, have been adequately described by S. A. Barrett.⁴

Household utensils, such as apparatus for basket-making, meal sifters, and workbaskets, were hung on the wall at the angle between the wall and the superstructure. Articles of clothing or ornamentation and other personal effects were suspended from the sides of the houseposts.

A considerable amount of household property was kept, not inside the *qe'we*, but on a rack, constructed of sticks, placed close to the house just outside and to the left of the doorway. No description worth recording can be given of it. On it were placed all cooking and eating utensils such as cooking and eating baskets and mush stirrers, and all effects for gathering food and supplies, such as burden baskets, seed baskets, and seed beaters.

⁴ The Material Culture of the Klamath Lake and Modoc Indians of Northeastern California and Southern Oregon, present series, v, pls. 23, 24, 25, 1910.

THE SUDATORY HOUSE

Young men before marriage, and older men at times, slept in the sudatory house. Its principal use however was that of a sweat-house. A number of men would gather in the house, close the entrance and smoke hole with mats, and sweat around a hot fire. When the heat became almost unbearable, they would open the door and run from the house to the river for a short swim.⁵ This practice was called ča'pohō.

The sudatory house (čapa'qewē), was, in point of structure, a qe'we built on a large pattern. The maximum diameter of the pit is said to have been from forty to fifty feet. Other dimensions, aside from the depth of the pit and the size of the doorway, were increased proportionately. The single doorway was normal in all particulars.

THE MENSTRUAL HOUSE

Customarily women during menstruation or childbirth spent a period of time in confinement in a menstrual house (qu'la). This house is described as having a pit three feet in depth and twenty feet in diameter at its greatest length. Two house posts, from eight to ten feet apart, stood in such a position as to equally share the weight of the superstructure. These two posts and the single doorway followed an east and west alignment. From a single stringer, supported by the house posts, rafters radiated to the top of the retaining wall where the interval between them was about four feet. The remainder of the superstructure was as in other houses. The door invariably faced eastward. The fireplace lay equidistant between and in alignment with the house posts. The smoke hole held its usual place on the south central side of the housetop. The nomenclature for all house parts was identical with that of the qe'we.

There were no permanent elements of furniture or equipment in the qu'la.

THE CEREMONIAL DANCE HOUSE

All ceremonial dances were held in a large house called lut. This was the largest house in the village. The true pit was from four to five feet in depth. The pit measured by the author was forty feet wide and fifty feet long.

⁵ A. L. Kroeber, *The Indians of California* (in press as a Bulletin of the Bureau of American Ethnology).

Eleven upright posts supported the superstructure. Of these a center post (*se'ktu*=chief) stood in the center of the pit. In line with this post and the two opposite doorways stood two end posts, each equidistant between the center post and the wall. Four side posts stood on each side at equal intervals, forming opposing arcs between the center post and the wall. The space between these side posts and the wall was from seven to eight feet across. The center and end posts were perpendicular; the side posts inclined slightly toward the wall. Side posts were all of equal height. Accurate heights can not be given, but the center post is described as being from one-fifth to one-fourth higher than the side posts, and the end posts as intermediate in height between these two. The length of the center post was about half that of the house pit, measured from doorway to doorway.

Side posts and end posts supported a connecting line of stringers circling the center post. At each end above the doorways this line of stringers was bent upward in gable formation, due to the difference in the relative heights of the end posts, on the one hand, and the side posts, on the other (see fig. 2).

Rafters radiated from the top of the center post across the stringers to the retaining wall as previously described. Four short heavy pieces of wood, stoutly tied end to end to form a square, surrounded and were solidly fastened to the near top of the center post a few inches below its otherwise characterless summit. This shoulder supported the superior ends of the rafters just below the point where they were clustered and tied. The remainder of the superstructure was identical with that of other houses.

A peculiar feature of the hut was its two doorways. The main entrance to the east agreed with the general type of passageway described above. It was called *pu'inabəpəs* (< *pu'i*=east, *pəs*=doorway). All spectators used this door for entrance and exit. The performers, also, after donning their ceremonial dresses outside, entered the hut by way of this door and left by the same door after dancing. The second doorway was on the west end of the house, directly opposite the *pu'inabəpəs*. It was called *noino'ibəpəs* (< *no'i*=west, *pəs*=doorway). This entrance was merely a rectangular break in the retaining wall, six feet high by three feet wide, through which a steep unprotected incline led to the exterior level of the ground. By way of this door, the performers, when not in costume, entered to take their places in the audience, or left to re-attire themselves for the next dance.

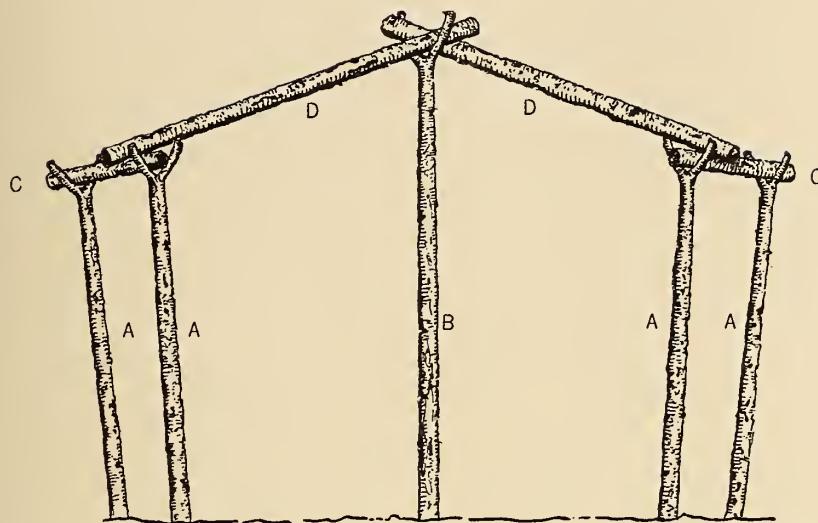


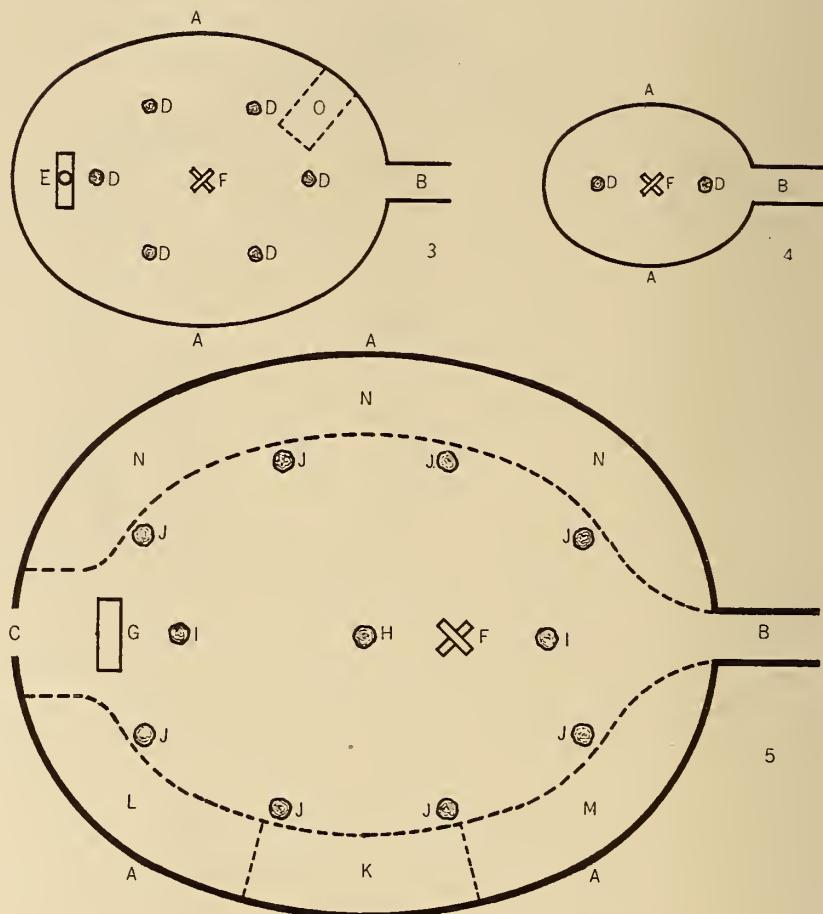
Figure 2. Stringer connections between end posts and side posts of ceremonial dance house.

- A. Side house posts.
- B. An end house post.
- C. Stringers connecting side house posts.
- D. Stringers connecting end house posts with extreme eastern or western pair of side house posts.

The ceremonial drum, a peeled and hollowed sycamore log, some six or seven feet in length and said to have had at times a diameter of two feet, held a position in the hut relatively the same as that of the mortar in the *qe'we*. It lay at the west end of the pit, intermediate between the western doorway and the westernmost of the two end house posts. Its greatest dimension extended north and south. It was held in place by four stakes driven, two on each side, near the drum ends. This drum was commonly called *ho'lwa*, but in the *he'si* dance, the principal ceremony of an esoteric society bearing the same name as the dance, this identical drum was called *hwa'la*.

The fireplace lay east of the center post intermediate between it and the most eastern of the two house posts. The smoke hole, unlike that of any other house, was situated on the north central side of the housetop about six feet below the crest.

During a ceremony the space between the retaining wall and the outer circle of house posts was well carpeted with small green willow boughs, furnishing a soft clean area on which to sit or recline. This sitting circle was called *ha'mla* (= sitting place).



Figures 3-5. Ground plans of Patwin houses: (3) dwelling house; (4) menstrual house; (5) ceremonial dance house.

- A. Pit wall.
- B. Entrance, pes.
- C. West entrance, noino'ib̄es.
- D. House posts.
- E. Mill, éobo'k.
- F. Fireplace.
- G. Drum, ho'lwa, hwa'la.
- H. Center post.
- I. End posts.
- J. Side posts.
- K. ha'mla reserved for chief's family.
- L. ha'mla reserved for ceremonial participants.
- M. ha'mla reserved for he'hetu entertainers.
- N. ha'mla reserved for non-participants.
- O. Bed scaffold, ta'wai.

There was a definite seating arrangement in the *łut*. The entire northern half of the *hamla*, from door to door, was reserved for the non-participating element, the audience. Families sat together, a certain paternal group being assigned to a definite place in the semi-circle. A space in the center of the southern half of the *hamla* was reserved for the village chief, his family, and his distinguished guests. To the chief's left, extending to the western doorway, the seating space was reserved for ceremonial officials, dancers, drummers, and ceremonial singers. A group of singers, whose part it was to entertain the audience between dances, sat to the right of the chief close to the eastern doorway.

All house parts not expressly named above shared the nomenclature of those of other houses.

TEMPORARY DWELLING STRUCTURES

During seasons of food gathering the entire community might be engaged in some occupation necessitating a continued absence from the village for a considerable length of time. Such occupations included the gathering of acorns and wild blackberries, and the catching and drying of sturgeon, salmon, and other smaller fish. The places where these supplies were to be obtained in greatest quantity varied from year to year. For this reason the village moved to the local centers of supply in season, taking with them the necessary equipment for work and livelihood. A period of time extending from midsummer well into the fall season was in this manner spent away from the village by the majority of its inhabitants.

During this period of absence from the permanent dwelling houses, temporary dwelling sheds were roughly constructed and used at the various camping grounds. These sheds served as sufficient shelters from sun and summer rains. Their building involved so small an amount of time and labor that no loss was felt at deserting them after a short sojourn.

Such sheds consisted of complexes of the following element: a low, flat, rectangular brush roof, supported by four corner posts, without walls or wall substitutes. Any available materials were used in their construction. A large family, remaining in one place for an appreciable length of time, would add now and again new elements to the original structure, each element like the first. The difficulty experienced in readily obtaining long strong stringers is given as the cause preventing the building of one large shed.



THE NORTHERN PAIUTE LANGUAGE
OF OREGON

BY

W. L. MARSDEN



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EDITOR'S NOTE

During twenty-two years of successful practice of medicine in Burns, Oregon, Dr. W. L. Marsden came into frequent contact with the Northern Paiute of the vicinity. He helped them, received their liking and confidence, became interested in their language, acquired a fairly fluent speaking knowledge of it, and devoted himself to its recording and analysis. Finding kindred interests at the University of California, he entered into relations with the Department of Anthropology, which were long maintained with mutual sympathy and satisfaction. As one outcome of the coöperation thus established, Professor T. T. Waterman, in 1910, during a stay of Dr. Marsden in San Francisco, with his practical assistance undertook a laboratory study of the phonetic elements of Northern Paiute, the results of which were published in volume 10 of this series. On Dr. Marsden's untimely death in 1913, his valuable collection of interlinear texts and grammatical notes was given to the University by Mrs. Marsden. Dr. Marsden having begun only shortly before a revision of his orthography and the ordering of his grammatical notes, the carrying out of this task fell to the University as his scientific heir; but the bulk of the materials has as yet prevented completion of the editing, and delayed publication. The present paper furnishes a brief sample of Dr. Marsden's important assemblage of data, to the extent of five of his forty or more texts and a check list of the principal formative and grammatical elements found in the dialect, the latter serving the analysis of the texts. The orthography is that employed by Professor Waterman in his phonetic investigation, except that the characters ü and ty have been replaced by e and ts. It should be added that the study by Mr. Gilbert Natches of the Northern Paiute dialect of Nevada, which follows Dr. Marsden's paper in this volume, was initiated to supplement the latter's labors.

FORMATIVE AND GRAMMATICAL ELEMENTS

PREFIXES

Instrumental, on verb stems:

- A. ma-|,¹ with the hand
- B. ni-;,¹ with speech
- C. su-;, with mental action.
- D. ta-;, with the foot
- E. to-;, with a long object
- F. tsa-;, by sustained force
- G. tsı-|, with a point
- H. tso-;, with the head
- I. we-;, with the body, broadly

Grammatical, on verbs:

- J. na-|, reflexive; reciprocal; passive. When the number is dual or indeterminate, na- is used; for a specific plural, nana-; nai- also occurs
- K. nama-|, dative reflexive, for oneself. Perhaps J + A

Pronominal, on verbs and nouns:

- L. i-|, me, my
- M. s-i-|, s-e-;, my, your, on subjective nouns
- N. ki-|, my, on oblique nouns
- O. e-;, you, your, singular
- P. te-;, his, her; proclitic, does not affect the accent
- Q. te-|, him, indefinite object, making transitive; incorporated element, drawing the accent
- R, S, T. a-|, o-|, u-|, third person objective; a-;, o-;, third person possessive.
These elements are of demonstrative origin.
- U. mi-;, us, our, inclusive
- V. ta-;, us, our, exclusive
- W. me-|, third person plural, second person singular, objective and possessive.

¹ The symbol “|” in this list indicates that a following organically indeterminate stop becomes sonant and so briefly occluded as to sound almost fricative; the symbol “:” that the stop becomes surd and its occlusion prolonged, other sounds, such as n and s, appearing also to be lengthened, and w appearing as kw. This is in accord with Waterman’s discrimination of the two types of stops and Sapir’s law (Am. Anthr., n.s., xvii, pp. 102 ff., 1915), determined first in Southern Paiute but apparently applicable to the Shoshonean languages generally, that stopped consonants occurring medially after voiced vowels assume three forms: geminated or lengthened, spirantized, and nasalized. Which form they assume seems to be in the main dependent on something in the quality or history of the stem which they follow. Thus, in Southern Paiute, tumpi, stone, lengthens, aňka, red, spirantizes, and ovi, wood, nasalizes, an immediately following stop. In Northern Paiute the nasalized stops do not occur, and the spirantized ones only approach this quality, being rather sonant stops with brief and loose articulation; hence the orthographies b, d, g, gw, dz. The gemination has not been indicated in the texts here presented: every medial p, t, k, kw, ts is to be read as wholly surd and long. Medial kw has two sources in Northern Paiute. Organic w becomes kw when it follows a stem that lengthens, remains w after one that “spirantizes.” Organic kw lengthens to kw, spirantizes to gw.

SUFFIXES PRIMARILY OF VERBS²*Tense, Mode, Aspect, Derivation:*

1. -na, incomplete action; -na-su (1+74), durative
2. -pe, completed action
3. -hu, aorist, past and present tense
4. -si, narrative preterite; perhaps also conditional
5. -kwe, impending or intended action; often future, but can be past, "was about to."
6. -tua, future of certainty
7. -sa'a, future of uncertainty
8. -puni, continuative, characteristic state
9. -ka, dubitative, quotative; perhaps often preterite
10. -wa, dubitative, quotative, inferential
11. -pa-na, compulsion or prohibition
12. -kuha, begin to
13. -sa-kwa, obligation, should
14. -sa-pa, permissive, imperative, may
15. -ku, -ku-ti, causative
16. -no'o, pe-no', kwi-no'o, also, too, the same; like; with (on noun)
17. -su-sa'a, (cf. 7), again
18. -watni, be able, be like
19. -tui, all kinds, every way, somehow, indefinitely
20. -sani, repeatedly
21. -ya-ga, strong desiderative; perhaps to "cry for"
22. -yai, the same meaning as the last
23. -ha'a, interrogative
24. -mani, durative, usitative
25. -yekwi, to do, do thus, cause
26. -we-na, -wene, be in the condition of, continue to be
27. -ka, away, off; going from
28. -ki, -ki-na, toward, hither; coming to
29. -mi, mi-na, along, moving along, continuing
30. -tu, make, cause to be (cf. 19)
31. -ta'a, he who, that which (transitive)
32. -ti'a, he who, that which (intransitive)
33. -pi-na, he who (emphatic)
34. -tiwa, again
35. -te, customary agent

² No suffix is limited to any part of speech. Any suffix or enclitic can be attached to any stem, apparently, if the meaning warrants. In the same way stems which we should classify as substantival, verbal, etc., are indiscriminately compounded, verb with verb, noun with noun, noun with verb, pronoun with adverb.

"Suffixes" of position and motion (evidently verb stems):

- 36. -tapi, lying
- 37. -hapi, lying, singular
- 38. -kwabi, lying, dual
- 39. -pukwa, lying, plural
- 40. -kate, sitting, singular
- 41. -yigwi, sitting, dual
- 42. -ata, sitting, plural
- 43. -wini, standing, singular
- 44. -wami, standing, dual
- 45. -kono, standing, plural
- 46. -nemi, moving, singular (cf. 29)
- 47. -mo, moving, dual or plural
- 48. -podo, around, moving in a circle

SUFFIXES PRIMARILY OF NOUNS

Formative:

- 49, 50, 51. -pa, -pe, -pi, noun endings
- 52. -tsi, ts'i, dimunitive; respect, endearment
- 53. -nau, friend
- 54. -bañi, privative

Number:

- 55. -me, plural (on a few nouns)
- 56. -ki'i, dual (on a few nouns)

Adverbial "Cases":

- 57. -ma, instrumental (cf. prefix A)
- 58. -ma, maiyu, -matu, in, on, to
- 59. -wai, (-kwai), in
- 60. -tu, -wai-tu, at
- 61. -pi, in
- 62. -pa, -pa-tu, at, place of, where
- 63. -ku-ba, on
- 64. -tami, toward
- 65. -nakwa, toward, beyond, behind
- 66. -ko-pi-na, before
- 67. -tuka, under
- 68. -naga, within
- 69. -kemaba, alongside

Possession:

- 70. -ka, possession, if not inherent (-ka-na, -ka-yu, -ka-ku = ka + 66, 67, 68)
- 71. -na, -naha, exclusive or restricted possession

SUFFIXES PRIMARILY OF ADJECTIVES AND ADVERBS

72. -yu, animate
73. -ku, inanimate, collective
74. -su, adverbial; also ending of demonstratives and reflexive pronoun.

SUFFIXES PRIMARILY OF PRONOUNS

Personal:

75. -ka, ending of first person singular; also on demonstratives
76. -mi, ending of first person plural, etc.
77. -me, ending of third person plural, etc., (cf. 54)
78. -ti, ti-u, emphatic, absolute

Demonstrative:

79. -hu, manner (thus)
80. -no, -no'o, -t-no, measure, time (so much), (cf. 16)
81. -na, at (there)
82. -wi, about (thereabout)
83. -pi, in (therein)

TEXTS

1. THE CAVE MYTH

1. Eme isa tekwañano onazu miana yipuwaitu yaisi onazu patehetsa maiyihuna yaisi idza'a oka maiyihu ne patehetsa ya'a tsagi'i.
2. Yaisi pabi'i nedza'a mi'i nedza'a kwati mi'i.
3. Yaisi oka kwañaa nano ta mi'i.
4. Yaisi ya'atu mia yaisi tsagi'i yaisi ogwati nano.
5. Otnohupina patchetsa opatsasi yaisi onazu mia nobikwaitu.
6. Yaisi onazu pabi'i tebiña hau'u e ipabi'i ka tehetsa yegwina kai kwitsoaikuti mi'ipina.
7. Onazu ne mia oka tepidu ne atsakwunaihu otnohu usu tehetsa ya'a tetsibuikina mi'i opabi'i otekwi'i oka idza'a.
8. Otnohupina ne patsa mi'i semene patsasi togi mi'ipina oka oka idza'a tekwi'ina.
9. Otnohupina ne owitu atsakwunaihu mi'ipina oka tekwaña'a tekwi'ina.
10. Otnohu piza mi'i tekwi'ina.
11. Yaisi tekwaña mia.
12. Ne opunikwe mi'i.
13. Yaisi onazu obuni.
14. Yahukwino'o mi'i usu idzaa.
15. Yaisi piza ne sunami mi'i usu idzaa mihu yatuana.
16. Yaisi atsakwunaisi tsagi'i katipuni.
17. Yaisi usu tehetsa kima yaisi usu okwati usu idzaa otehomaina.
18. Yaisi semewaa atsakwunaihu oka natsatima yaisi oka tehetsa iwaiyu kima hitui koipatui hitui tinatui hitui patchetsatui hitui sona'atui hitui woyunatui hitui ikwitsikwidzatui hitui tokakwidzatui.
19. Yaisi isu kaiba kusi timataina yaisi usu pabi'i opunina oka kusiba yaisi piza osopidakwatu.
20. Usu idza'a kai sunamina atsakwunaihu mihu usu sunami usu pabi'i.
21. Otnohupina sagwaii.
22. Isa nobikwai habidza.
23. Yaisi usu idza'a ka tehetsa tsipuikisi iwa akwipana kai tegwati.
24. Otnohupina ka mihu yadua hi yaisi kai tu'igwina mi'ipina yaduana yaisi yotsihu yaisi tekwua yu'u yegwina matsiginana.
25. Otnohupina temadonunuinoma iwa'a patsisi onatu tepabi'ino nobikwaitu mia.
26. Yaisi tepabi'iba pitega.
27. Opabi'i isamotsakwati'itapi.
28. Yaisi usu idza'a pite.
29. Ya'a ne tehetsanaginit-saga'a neno pite mi'i yadua.
30. Mihupina usu idza'a yaduana.
31. Ya'a tedeka mi'i yotsisi mi'i.
32. Yaisi usu isa onazu habi sagwaiina.

TRANSLATION

1. THE CAVE MYTH

1. They, Gray-Wolf and-his-brother, yonder were-going, in-the-valley, and yonder an-elk finding, then Coyote: "That found I an-elk there close-by." 2. Then the-older-brother: "I-am-going," he-said, "I-am-going to-shoot," he-said. 3. Then that the-younger-brother: "Both we," said. 4. Then there-to (they)-went, then, close; and that-shot both. 5. Then-it-was, the-elk having-killed, then yonder went to-the-house. 6. Then yonder the-older-brother (he)-asked, "How-(do)-you, my-brother, the deer manage not you-cause-them-to-escape?" he said. 7. "Yonder I go; those rocks I remove, then the deer there come-out," so his-older-brother him-told, him Coyote. 8. "Then-it-is I kill," he-said, "(when)-one have-killed, it-is-well," he-said to-him, to-him, Coyote, told. 9. "Then-it-is I in-there (the-rocks)-throw," so-it-was to-him, his-younger-brother, telling. 10. "Then good," so-he was-telling. 11. Then his-younger-brother went. 12. "I that-will-see," he-said. 13. Then yonder that-saw. 14. "Here-(it-is)!" he-said, he, Coyote. 15. Then, "Good I feel," he-said, he, Coyote; this talking. 16. Then having-thrown-away-(the rocks), close-by sat-down. 17. Then the deer came; then he them-shot-at, he, Coyote; them-missing. 18. Then every-one (he)-threw-away that door, and-then the deer many-of-them came; some-things, mountain-sheep; some-things, antelope; some-things, elk; some-things, bear; some-things, bear-cubs; some-things, black-bear; some-things, brown-bear. 19. Then these mountains dust showing (?), then he, the-older-brother, that-seeing, that dust, then well understood. 20. "He, Coyote, no sense-(having), has-opened-(the-door)," this he thought, he, the-older-brother. 21. Then-it-was (he)-was-angry. 22. Gray-Wolf in-house (went-and)-lay-down. 23. Then he, Coyote, the deer having-come-out, many had-to-shoot-at; not them-hit.

24. Then-it-was he this talked: "What now, not it-smelling?" so-it-was he-was-talking; then he-rose-up; then membrum-virile in-this-way doing, shaking. 25. Then-it-was his-fire-drill-with a-fawn having-killed, there-to his-older-brother-with in-the-house went. 26. Then his-older-brother's-home-at arrived. 27. His-older-brother was-lying-covered-with-a-wolf-skin. 28. Then he, Coyote, came. 29. "Here I a-deer-fawn I-with come," so-he talked. 30. This-it-was he, Coyote, was-talking. 31. "Here, we-eat," he-said, after-(you)-get-up," he-said. 32. Then he, Gray-Wolf, yonder lay, angry-being.

33. Otnozupina panitogokwa tokayu setayu hitui nemedzohotitui hitui pa'oha'atui mihu nanatenitsuba. 34. Otnozu iwayu ibitu tipogiwaitu tibiwagayu no'okozu hitui. 35. Pabayu nana hitu'i manimutu togokwatu'i hitui panitogokwatui himatui kutsunatui hitui pa'oha'atui uniyuhupina usu neme na.

36. Tipetu manimutu ya'atu wogopitutui. 37. Mi'i yaduana epina setaiyu neme mi'i yaduana. 38. E obi tibiwaga mi'i yaduana. 39. Obi tawagana kumazu tipewaitu mi'i pabayu nana yaduana. 40. Obitu mia obitu tibiwaga mi'i yaduana usu nememanimututi. 41. Esa'a ya'atu neme suatua mi'i yaduana. 42. Otnohupina obi odaya. 43. Obina obunina usu nememanimutute usu nemedzohoti ya'atu suana otnohupina obitu tayana. 44. Ona kuyuipawaitu inakwa usu tipe-tawagana ona semekwaiwaitu namanakapa inakwa tabatsibuinakwa usu teputawagana. 45. O'opina oga setako to. 46. Ohu oga pabayu nana tenimatigupe.

47. E idzaa kai ibitu miapania mi'ipina usu pabi'i isu isa mihu onitamana oka tekwaña'a. 48. Otnohupina ka idzaa yau iwihi tipeawaitu sudzaii mi'i kai tekapania mi'i otnohu usu idza'a kayahu iwihi tepewaitu kai omugua hano mia yahuzu usu mogua iwihuzu. 49. Mihupina natenitsui. 50. Otnohu usu idza'a mugua yahu kaiyaiwatniyu yaazu nemetuana usu mogua eme timataipena. 51. Usu idzaa himatui seta mayigwina otnohu kai ibitu mia obi tsoapatipewawaitu.

52. Owihu usu opabi'i ozagwaiikusi uhupina usu nememanimutute ka tepe mayigwina oga tipe pabatipogi tawagakina owitu oga setako tayapu. 53. Otnohu usu setaiyu miapu usu hitui nemedzohoti usu hi nemetekade usu nemewatinizu tabe'ade usu setayu usuhu hisapaga uniyuhu. 54. Usuhuzu usu nememanimutute usuhu mihu neme tenitsui.

55. Patepogi pa'oha'a tipewa mihu nania otnozu patipogi mi'i otnozu umu mumuakimade. 56. Iwayu mi'i obunina owihu kai isaya'i. 57. Mihupina usu pa'oha'a titanobina o'otui tikuyuana.

33. Of-old-it-was the-lake-rattlesnake a-hole-had; bad something, Indian-crushers-(Giants); something, Water-babies (water-imps); so-are the-traditions. 34. Of-old many-(there-were) in-there in-Malheur-Cave lived; all-of (these)-things. 35. The-Great Man things created: snakes; something, the-lake-rattlesnake; some-things, the-buffalo; something, the-Water-babies; this-kind-it-was he, the-people's Father.

36. Rocks created; there, fire-wood, the-pine-trees. 37. So he-talked: "You-are evil people," so he-talked. 38. "You in-there live," so-he talked. 39. "In-that hole; a-different country-in," so the-Great Man talked. 40. "In-there go! In-there live!" so he-talked, he, the-Indian-Creator. 41. "You-will here the-people destroy-will," so he-talked. 42. Then-it-was in-there them-sent. 43. There-it-was them-seeing, he, the-Indian-Creator, them the-Indian-crushers, there destroying, then-it-was in-there sending. 44. Yonder Sucker-Lake-at-(Pyramid Lake) this-way the earth-hole-is; yonder one-hundred miles on-this-side, sun-rise-direction, the earth-hole. 45. There-it-is that bad hole. 46. There the-Great Man (them)-sentenced.

47. "You, Coyote, not in-there must-go!" so-it-was he, the-older-brother, the Gray-Wolf, this to-him-told, him, his-younger-brother. 48. Then-it-was to-him, Coyote: "Now here on-this-earth freeze-to-death," he-said; "not eat-must," he-said, then he, Coyote, here in-this country; not his-soul anywhere goes; here-is the soul, in-this-place. 49. So-is-the tradition. 50. Then he, Coyote's, soul here cannot-die; here is-being-created, the soul strong conjured-being. 51. He, Coyote, some-things bad doing, then not in-there go into the-Spirit-country.

52. About-that he, his-older-brother, him-having-been-made-angry, so-it-was he, the-Indian-Creator, that earth made; that earth a-great-cave excavating; into-it those evil-things sent. 53. Then they the-evil-ones are-gone, he, some-thing, the-Indian-crusher; he, thing, the-Indian-eater, he, (he-who)-an-Indian-like appeared, he, the-evil-one; he-was something-unknown kind. 54. It-was-by-him, him, the-Indian-Creator; he-it-was this the-people taught.

55. The-Water-Cave-(Malheur-Cave), the-Water-babies' country, this-was named of-old; the-water-cave, so of-old they, first-comers-(fore-fathers). 56. Many they-said them-seeing in-there no lie. 57. So-it-is they, the-Water-babies, build-with-rocks; somewhere piling-up-rocks.

58. Obinakwa tipetawaga obihupina isu kuma'azu neme mihupina nanatenitsui. 59. Iwayu pukugayu mi'i iwayu tehetsagayu mi'i. 60. Mihu usu nememanimutute usuhu mihu tetu'ame tenitsui. 61. Nemewatnizu tabe'a mi'i tetu'ame tenitsui. 62. Kuma'azu mi'i obituzu neme mi'i kai nega tu'ame mi'i. 63. Mihupina oka tetu'ame tenitsui otzu neme manimutusi. 64. Kai tepagayu mi'i onitama okwitakina odeka mi'i ohutui odekanasapa uniyuhu mi'i usu nememanimutute. 65. Ibitu katohu pa mi'i pabayu pa katohu mi'i ibitu pizayu pahutu mi'ipina patsona mi'i pizayu. 66. Usu nega tepe imayigwina. 67. Mihu oka tetu'ame tenitsui. 68. Owituhu ne oga setaku tayabibu'a.

2. THE THUNDER BADGER

1. Usu niniaba sakwaiina ka oka tapi pasape oka kai osogokaku osogokakukwesi oka pa pasape.
2. Usu niniaba paumaba pabi'i kumiba pidakwabatu tibiwagayu.
3. Husiabagayu usu niniaba mataiti hunakwatnizu tabe'ada paumaba temataiti usu niniaba.
4. Tihiwisi tugupa'atu anuna otnohu ka kumiakina yaisi paumakina oka tipe nasagwai'ikukina niniabakina tukwukwitsikina seda enikina.
5. Usu tibitsi huna semezu motohawoyua ibitu hupodotu.
6. Usuta'a sikwi huna uniyuhu.
7. Usu niniaba mataiti oka tipe pasape kai pizapi tehuwina ku atsimapanana.
8. Otnohu ka tugupa'atu anudzakwi ka paumabituna yaisi ka kumiakina.

3. THE SACRED WOLF-TRACKS

1. Yaisi ka nememanimutute mia kwaia'a oka mogotqino onat kwaia'at pamanapatu.
2. Mihu nanatenitsui.
3. Yaisi ka kamuazu isu maiyupana nai'i yaisi isu tipe kutyuma mihu.

58. Inside the-earth-hole inside-there-are these different people; so-are the-traditions. 59. Many horses-have, they-said; many deer-have, they-say. 60. This he, the-Indian-Creator, he-was this-was to-his-children taught. 61. "People-like (they)-appear," so his-children taught. 62. "Different," he-said, those-in-there people," he-said, "Not my children," he-said. 63. This-it-is them, his-children, taught, of-old (after)-the-people were-created. 64. "No mouths-(they)-have," he-so told-them; "through-their-noseholes they-eat," he-said; "there they-are-used-to-eat; (they)-are-this-kind," he-said, he, the-Indian-Creator. 65. "Inside-there there-is-no-water," he-said; "great water there-is-none," he-said; "in-there good river," so-it-is, "springs," he-said, "good-(ones)." 66. "That, my earth, I-made." 67. This his his-children taught. 68. "Into-that-place I those evil-things sent."

2. THE THUNDER BADGER

1. He, the-Thunder, when-is-angry that, that earth has-dried-up; that not moist-earth-has, that-moist-earth-he-desires-to-cause, that water dried-up.

2. He, the-Thunder, the-Rain Chief, the-cloud surface-on lives. 3. (He)-has-frost; he, the-Thunder sorcerer, a-badger-like appears; the-Rain Sorcerer, he, the-Thunder. 4. After-he-digs, to-the-sky he-lifts-his-head-up, then the clouds-come; then the-rain-comes; that earth cursing-comes; the-Thunder-comes; the-lightning-comes, evil saying-comes.

5. He, the-real badger, alone white-stripes-on-his-nose-(and) in-here on-the-back. 6. He-it-is just the-badger; this-kind-(it-is). 7. He, the-Thunder Sorcerer, that earth dried-up (does)-not like, (when)-digging, in-that-manner scratching. 8. Then that sky-to raising-his-head, that the-rain-makes; then that cloud-comes.

3. THE SACRED WOLF TRACKS

1. Then he, the-Indian-Creator, went far-away his woman-with yonder afar-off across-the-water. 2. Thus-are the-traditions.

3. Then he of-old this everything-in-the-world burned; then this earth was-burned-to-ashes; thus.

4. Yaisi usu isa ka neme nana oka tabano yaduana isusakwa pasakwa apatazopaka mi'i. 5. Yaisi otno isu pa ka yu'u mani mi'ipina. 6. Yaisi pasaka yaisi usu taba ka ono isano aha usakwatu eme tuameku mi'i masu taba oka isa nitama. 7. Yaisi aha mi'i. 8. Yaisi otnohu itsa manimutu itsa wogopitu itsa wapitu itsatui suñabitui himatui, sobitui, himatui, subitui, hima patsonatui tehetecatui; hima ho'okozu patsugutui himatui kohi'itui hima no'okozu agaitui nookozu kaipatui hima sonaatui.

9. Yaisi manimutu makwe otnohupina eme otuame ka seta manakwi puzu na'akwi huaidima. 10. Yaisi usu mena sagwai'isi otnohu ka naimuta me tapibuahu. 11. Mi'ipina. 12. Otnohu isu nemetui ka iwaiyutui. 13. Yaisi otnohupina ka mia ona panakwahu-kwapawaitu. 14. Yaisi ka yagana kai ne iduame punikwe mi'i enisi yaisi ka mogotnipeno'o yaga iduame ya'azu mi'i enina. 15. Yaisi ona pawaitu we'idza mi'i nawahade. 16. Yaisi ka pakubakwai mia mi'ipina nanatenitsuida.

17. Ka itsa manimutusi itsa kaiba wogokodakwa yaisi iwhiu ne miakwe ya'a itsahu inemupasa'a iduame puni mi'i enina. 18. Ka ohu ne nanabuniga okahu isu neme puni. 19. Epenoo soyapo'o obuni. 20. Uhupina.

21. Itsahu tipewaitu yahu manimutu mi'i tiwazu nanatenitsui itsa kutsuma tibitsi kutsuna inokohuzu pukunokozu ya'atu manimutu.

22. Usu taba isano nememanimutuna. 23. Mihu pina isu tipe nanatenitsui. 24. Otnozu isu kaiba patatsopida mi'i kai kaibagayu kato'o tipe. 25. Yaisi pasamina yaisi usu kaiba ma'uniyuhu. 26. Yaisi isu pa ya'a pakumagayu kai pamaniwatniyu.

4. THE COYOTE AND THE DOG

1. Idza'a yadua e inanakwe e pehe igia e itsa nega pehe etsata'a koso'i kadenemikwe. 2. E pehe igia inanakwe. 3. Yaisi tepehe ogia oka teatsi. 4. Usu sade'e oatsidzayu oka idzaa. 5. Oka tepehe nabidogayegwi. 6. Nebina edzetsetukwai nemikwe kwaia kaibama onayu ne yagakwe. 7. Usa'a nakatua. 8. Kame ne tekakwesi yagakwe upina ne tekakwesi ne yagakwe tsiaya'ina. 9. Himasakwa ne teka mihu ne sunamina.

4. Then he, the-Gray-Wolf, the Indian man, him the-Sun-with talked: "This-should, dry-place, flood," he-said. 5. Then at-that-time this water it in-this-way was, it-is-said. 6. Then dried; then he, the-Sun, he him-with Gray-Wolf-with: "Yes; you-should those children-cause-to-be," so he, the-Sun, to-him, Gray-Wolf, declared. 7. Then: "Yes," he-said. 8. Then at-that-time these created: these, pine-trees; these, juniper-trees; these-things, aspen-tree-things, some-things, cottonwood-tree-things; some-things, willow-things; some-things, springs; deer-things; things (of)-all-kinds; otter; some-things, beaver; things, all trout; all mountain-sheep; things, bear.

9. Then the-creation completed, then-it-was they, the-children, they wrong did; among-themselves fought with-bows. 10. Then he, their-father, being-angry, at-that-time them apart them kicked-out. 11. So-it-is-said. 12. At-that-time the Indian-tribes they were-many. 13. Then at-that-time-it-was he went there to-the-south. 14. Then he cried: "Not I my-children am-going-to-see," so having-said, then she, the-woman-too cried: "My-children are-here!" so saying. 15. Then yonder into-the-water descended, so the-reports. 16. Then they on-the-surface-of-the-water went, it-is-said (in)-the-traditions.

17. He these having-created, this mountain, pine-covered-summit, then: "In-there I am-going; there these my-tracks-after awhile my-children will-see," so saying. 18. "That there I have-tracked; that these Indians see. 19. You-too, white-men, that-see." 20. So-it-was.

21. This country-in here created, so also the-teachers, these buffalo, real buffalo, this-with horses-with here created.

22. He, the-Sun, Gray-Wolf-with were-creating. 23. This they-are this country's traditions. 24. At-that-time these mountains covered-with-water, they-said; no mountains-had; not-any land. 25. Then gradually-dried; then the mountains were-like-that. 26. Then this water there banks-had; not water-being-like.

4. THE COYOTE AND THE DOG

1. Coyote talked: "You, my-nephew, your skin give-me; you this, my skin, you-are-the-one-who (by)-the-fire are-going-to-sit. 2. Your skin give-me, my-sister's-son." 3. Then the-skin to-him-gave, him, (the)-mother's-brother. 4. He, Dog, him-(for)-mother's-brother-had, him Coyote. 5. (With)-him his-skin a-trade-made. 6. "I-it-is in-the-cold-place am-going-to-stay; far-away (in)-the-mountains; yonder I shall-ery. 7. You-then will-hear-(me). 8. Rabbit I want-to-eat, I-will-ery; so-it-is (when)-I want-to-eat, I will-ery being-hungry. 9. What-things-shall I eat? this I thinking."

10. Otnozupina idza'a nobikwai nemina munaui nemina. 11. Sade'e yadua ne nobikwai neme nobikwai ne manikwe esakwa idza'a mani. 12. Mi'ipina usu sadiu yaduana. 13. Yaisi ta tepehe nabido-gayegwi.

14. Mi' oka idza'a nitama. 15. Mihu nanatenitsui. 16. Yaisi usu idza'a yadua inanakwe mi'i e peme igia etsata'a koso'i katenemikwe mi'i. 17. Netsata'a edzetsetukwai nemikwe mi'ipina oka tenanakwe nitamana. 18. Otnohu oka teatsi yaga usu sadiu ozutihaina yaga-peno'o seda omatu puiwesunamina.

5. HOW COYOTE LOST HIS EYES

1. Tibuitsitsi tepui tsutsayibahu³ tugupa'atu obibuahu aizu yeg-wihu pitehu. 2. Usu idza'apeno'o mihu enisi tepui tsutsayibahu tugupa'a obibuahu. 3. Yaisi onadedehaku otibitsi nadedehaku.

4. Onayu nanega idza'a puimayu. 5. Idza'a pui nadzakwinikuna omayuhu nanega idza'a puimayu. 6. Idza'a yaisi onazu kima yaisi tekwi'i yau ne kima mi'i tekwi'ina. 7. Yau ne neme puniki. 8. Himayu nanega. 9. Haga puimayu. 10. Nesakwa puni mi'i yadua oka idza'a. 11. Yaisi oka nana ogia ka idza'a pui. 12. Yaisi yadua idza'a piza. 13. Haga pui mi'i yadua. 14. Yaisi yagana yaisi ogwuhu tebui yaisi poyoaga'a yaisi ohomanai kai iwhu tepuikwai oyegwi-kuhusi.

15. Idza'a wahu nodekwaigayu. 16. Onazu mia tepitu koipa onahu hoapitega. 17. Usu wahayu momogotni yaisi yadua ya'a tsagi'i koipa mihu yadua oka momogotni. 18. Yaisi idza's yadua aha mi'i yadua ne obuni mi'i yadua. 19. Yaisi idza'a yadua yahusapagakate mi'i yadua. 20. Onazu mia idza'a okwunakwatu tsagi'i oigwina yaisi onakahu tenakatu usu idza'a inazu koipa kanadzakwi owitu yaisi kwatiwena iwa kwatiwena iwa tehomaina tegai tebutubuina. 21. Onadu yaisi seme patsahu. 22. Yaisi oduhaniwena. 23. Yaisi oka temogotni yadua hau'u e mahu ozudzahu mi'i yadua. 24. Yaisi oka idza'a yadua ka me gwahu ne ka mahu mi'i yadua. 25. Seme inakwanakwaitu semepeno'o inokwanakwaitu. 26. Yaisi idza'a nobikwaiwaitu mia ka mogotnino wahuno. 27. Nobikwai pitega idza'a onazu tabiewihu. 28. Yaisi oka mogotni pukabakwami tsotege ewihu. 29.

³ Perhaps for tsatsibohu.

10. At-that-time-it-was Coyote in-the-house was-staying, a-long-time staying. 11. Dog talked: "I in-the-house, person's house-in, I am-about-to-be; you-shall Coyote be." 12. So-it-was he, Dog, talked. 13. Then: "We his-skin make-a-trade."

14. This to-him, Coyote, told. 15. Thus the-story. 16. Then he, Coyote, talked: "My-sister's-son," he-said, "your skin give-me; you-are-the-one-who (by)-the-fire will-sit," he-said. 17. I-am-the-one-who in-the-cold-place am-going-to-stay," he-said, to-him, his-sister's-son, told. 18. At-that-time-(then) to-him his-mother's-brother crying, he, Dog, was-sorry-for-him: crying-too: bad to-him his-heart-was-feeling.

5. HOW COYOTE LOST HIS EYES

1. Purple-Finch his-eyes plucked-out-(and) (into)-the-sky them-threw; back caused-(them) to-come. 2. He, Coyote-too, (after)-so saying, his-eyes plucked-out-(and) (into)-the-sky threw-them. 3. Then they-were-stolen, indeed were-stolen.

4. Yonder-(was) a-dance Coyote's eyes-over. 5. Coyote's eyes were-hung-up; over-them-was the-dance, Coyote's eyes-over. 6. Coyote then yonder came; then told-(them): "Now I come," so was-telling-(them). 7. "Now I people come-to-see. 8. What-about the-dance? 9. Whose eyes-over? 10. I-should see," so (the)-talk by-that Coyote. 11. Then by-that man that-given that Coyote's eyes. 12. Then talked Coyote: "Good! 13. Whose eyes?" so talked. 14. Then cried; then them-got, the-eyes, then trotted away; then ran-fast, not in-here, the-eye-place, them-first-having-placed.

15. Coyote two-was wives-having. 16. Yonder went in-the-rocks mountain-sheep, there-were to-feed-come. 17. Those two women then talked: "There close-by mountain-sheep," this talked by-them, women. 18. Then Coyote talked: "Yes," so talked, "I them-see," so talked. 19. Then Coyote talked: "You-may-sit-here," so talked. 20. Yonder went Coyote on-the-lee-side close-by; them-smelling; then them-heard in-his-ear, he, Coyote, this-direction-(in) mountain-sheep a-noise-made, there then was-shooting, many-times was-shooting, many-times missing, he-not clear-seeing. 21. Yonder then one killed. 22. Then that-dressed. 23. Then that-one, his-woman, talked: "Why you thus that-cut?" so talked. 24. Then that Coyote talked: "Because you two-are I that way-am," so talked. 25. "One in-this-direction; one-also in-this-direction." 26. Then Coyote to-house went the women-with two-with. 27. In-house arrived, Coyote yonder day-slept. 28. Then

Yaisi mogotni oka puni oka idza'a yaisi oka mayihu. 30. Aha setako puidzaiyu mi'i. 31. Yaisi oka tehama tekwi'i setayu mi'i oka idza'a pui setayu mi'i. 32. Yaisi hama yadua wadzimimiahu ta mia mi'i. 33. Yaisi ohama otepitu yawikisi ya'a okuba otsotegekuti yaisi wadzimimiahu.

34. Owihupina tenodekwa wadsika owihupina yagana usu idza'a. 35. Yaisi yadua neme usu no'oyuzu kasagayu hitui. 36. Yaisi osuti-haina oka idza'a yaisi usu pohinabi yaisi nana yadua aha mi'i yadua yaisi tebui ogia.

37. Mi'ipina nanatenitsui.

(on)-that woman's lap head-laid-(and) slept. 29. Then woman that saw, that Coyote; then that found. 30. "Aha! bad-ones eyes-has," she-said. 31. Then that her-older-sister told: "Are-bad," she-said, "that Coyote's eyes are-bad," she-said. 32. Then older-sister talked: "Slyly-go-away we go," she-said. 33. Then her-older-sister her-rock having-brought, there on-top-of-it his-head-caused-to-be-placed, then they-went-away-slyly.

34. It-was-there his-wife (he)-lost; it-was-there he-was-crying, he, Coyote. 35. Then talked people, they all-(that) feathers-have things [birds]. 36. Then for-him-being-sorry, that Coyote, then he, the-pohinabi, then to-the-men talked; "Yes," he-said, talked, then his-eyes gave.

37. So-are the-stories.



A PRELIMINARY SKETCH OF THE
YAQUI LANGUAGE

BY
J. ALDEN MASON



A PRELIMINARY SKETCH OF THE YAQUI LANGUAGE

J. ALDEN MASON

Some years ago, while spending a short time at the Museo Nacional in Mexico City, the writer seized the opportunity of transcribing a number of vocabularies recorded from various languages of the Sonoran¹ linguistic stock during a nation-wide census of several decades ago. These vocabularies afforded him many days of interesting research, making comparisons with each of them, and later with other languages of the Uto-Aztekan group, such as Tepecano, Papago, and Nahuatl. It would take us too far afield to consider at this time the conclusions regarding the groupings of the various Uto-Aztekan languages to which these comparisons led him; suffice it to say that he became convinced that the group containing the Cahita languages, of which Yaqui is the most important, displays by far the closest resemblance to the Nahuatl languages, of which Aztec is preëminent. He thereupon formed a desire to make an intensive study of Yaqui—a desire which as yet has not been fulfilled—which was further whetted by the impression received independently by Dr. Kroeber that Yaqui is, of all the Sonoran languages, the most closely related to Shoshonean. The hypothesis that Yaqui presents the most archaic, undifferentiated form of Uto-Aztekan would therefore seem to be not ill founded.

The opportunity to do further work on Yaqui did not present itself until the winter of 1918–1919, when the writer spent a short time in Tucson, Arizona, working on the Papago language for the University of California and the Southwest Society. The presence of a small colony of Yaqui in the vicinity afforded the desired opportunity to make a few linguistic and phonetic notes which form the basis of the present article. These were so meager, however, that they would have been almost valueless without the assistance and corroboration of the only extant Yaqui grammar, “Arte de la Langua

¹ Following the example of Dr. Sapir, I am adopting the more inclusive and rational name Sonoran for the linguistic family named by Powell “Piman” and using the term Piman to designate the sub-group comprising the Pima, Papago, Tepehuane, Tepecano, and possibly other languages.

Cahita," first published in Mexico in 1737, and edited and reprinted by the late Eustaquio Buelna, in 1890. It is a pleasure to bear witness to the excellence of this work of the anonymous "Padre de la Compañía de Jesus," believed by Buelna to be Juan B. de Velasco, 1562-1613. By the help of this admirable grammar, the writer has been enabled to understand and analyze practically all the grammatical constructions, stems, and morphological elements of his brief notes. Apparently this tongue, innocent of all literature or expounded grammar, has undergone little or no change in the three centuries and more which have elapsed since the good father first employed it in his missionary labors.

The writer has therefore based this preliminary sketch of Yaqui on the material found in Velasco, rearranging and interpreting it to accord with modern scientific linguistic thought, and using his own less instructive notes as examples and corroborative evidence.

PHONETICS

VOWELS

The usual five primary vowels, *a*, *e*, *i*, *o*, *u*, were used by the writer in recording Yaqui. They seem to have been used similarly by Velasco and other recorders of the language. The normal quality is medium open, neither so close nor so open as vocalic qualities in English, but tending toward openness. Close qualities were recorded by the writer under certain circumstances, noted below. These appear to be not of primary value and it may be posited that there is but one vocalic quality in Yaqui. Nasalization seems to be not organic; one instance of nasalized *e* was recorded.

a has the usual continental value. The *a* of the word "but" as in American speech was recorded six times, all short unaccented ultimas, generally before plural *-m*.

e is normally nearly as open as in English. Close *ē* was recorded only once. In four instances, all also of short unaccented ultimas, a vowel phonetically intermediate between *e* and *i* was recorded. This is probably a slight variation from *e*.

i probably tends to be a little closer than *e*. Close *ī* was recorded five times, in every case an accented penult or ante-penult and was probably so heard due merely to the stress.

o is generally quite open and no instance of close *ō* was noted.

u is also open, and no instance of close *ū* was recorded. But in six cases, generally of short unaccented ultimas, an indeterminate *o-u* vowel was noted, which was probably a heard variant of this *u*.

Vowels appear to be genetically either long or short. Instances of doubled length were recorded for each of the five vowels, the long vowel being accented in almost every case.

Sapir² posits five vowels for original Uto-Aztekian, *a*, *e*, *i*, *ɔ*, *u*, which correspond exactly with Yaqui. The four vowels *a*, *i*, *ɔ*, *u*, appear to be uniform in all Uto-Aztekian languages, while the retention or replacement of the *e* vowel is one of the principal criteria by which they are grouped. The Piman group of the Sonoran languages (Pima-Papago and Tepehuane-Tepecano) have replaced *e* by *ö* (*i*, *ü*) while the other groups, including Yaqui, as well as Nahuatl, retain *e*. The Shoshonean languages, like the Sonoran, seem to be divided, the Luiseño-Cahuilla group retaining *e*, while the others have adopted the *i*.

CONSONANTS

The primary consonants of Yaqui appear to be *w*, *y*, *m*, *n*, *l*, possibly *r*, *s*, *v*, *h*, probably *bw*, *p*, *t*, *k*, and *tc*. Velasco states that all the letters of the Spanish alphabet with the exception of *d*, *g*, and *x* (*c*, *sh*,) are found in Cahita. His editor, Buelna, notes the absence also of *f*, *ll*, and *ñ*. Later Velasco notes that the doubled *rr* is missing also. All these exceptions are lacking also in the writer's records. The latter has not, also, any recorded instances of the sounds represented by the Spanish *j*, *z*, and *b*, letters not included within Velasco's exceptions. A rapid inspection of pages of Velasco's vocabulary fails to reveal an instance of *j*, which is apparently merely a phase of the aspirate *h*. *z* is found only in the affricative *tz* (*ts*) which Buelna claims in a footnote—he does not state on whose authority—to have the sound of *ch* (*tc*). *b* followed by a vowel is frequently used by Velasco but was never written by the present writer, who believes it to be a phase of *v*.

w is a semi-vowel with practically the same value as in English. It was recorded frequently by the writer, but in almost every case before *a* or *e* (one instance of *o*). This must not be taken to indicate, however, that it does not occur before *i* and *u*. In one case it was confused with *v*. Velasco seems to enjoin this distinction when he cautions against the confusion of *u* and *v*, giving as examples *ueie*, "go," and *veie*, "be left over, remain." By *u* he probably refers to *w*, as Spanish orthography lacks any simple character for the representation of this sound, generally employing *u*, *hu* or *gü*. Voiceless *w* was recorded several times by the present writer.

The semi-vowel *y* has a slight tendency toward the *j* of French *je* (*z* as in *azure*). It was recorded most frequently as initial and once as voiceless *y*.

m, the bilabial nasal, is practically as in English. It is frequent in all positions and has a tendency to become unvoiced when final. *m* of double length was recorded once.

² Edward Sapir, Southern Paiute and Nahuatl, A Study in Uto-Aztekian. Journal de la Société des Américanistes de Paris, n.s., x, 1913, pp. 379-425; xi, 1919, pp. 443-488.

n is also simple and common. Two instances of the palatal *η* were recorded, one before *k* and one before *w*. Another instance of *n* before *k* precludes the suggestion of any phonetic law governing *η*, which is probably merely a heard variant. One instance of doubled length was recorded.

l is relatively common in Yaqui and appears to be independent of phonetic rules. Two instances of voiceless *L* were recorded. The writer never confused *l* with *r*, but once wrote a questionable *l-n* sound.

r certainly exists as a sound phonetically independent of *l*, though it may be not primary, nor so frequent. The writer recorded *r* three times in his short notes, in each case being corroborated by Velasco's rendering. The latter states that in some words *l* and *r* are interchangeable and pronounced differently by different persons (*i. e.*, intermediate?), while in other words the sounds must be distinguished, as *alanoca, speak well* and *aranoca, be able to speak*.

s displays a very slight tendency toward *c* (*sh*), there being no real *c*. Velasco states that *s* is changed to *h* before a medial consonant in some parts.

v is bilabial sonant, never voiceless. As before noted, it was once confused with *w*, a confusion cautioned against by Velasco. Quite frequently, however, an indeterminate *v-b* sound was written. The writer believes *v* and *b* to be merely heard variants. He never wrote impeccable *b*. Velasco, however, uses *b* frequently as well as *v* and enjoins distinction between them. As an example, however, he gives *buiuc*, accusative of *much* and *vuiuc*, preterit of *quarrel*. This *bu* of *buiuc* is evidently not *b* but *bw* which will be considered later. It is doubtful if the distinction made by Velasco between *v* and *b* is phonetically warranted.

h is phonetically intermediate between American *h* and Spanish *j*. The several instances of *x* written by the writer are probably not to be distinguished.

bw was not recorded at all by the writer; the reasons for its inclusion here will be explained hereinafter. It is frequent in Velasco as *bu* followed by a vowel.

p is purely surd and not common. It is unaspirated.

t is likewise unaspirated surd. Several times it was written as intermediate *t-d*.

k approaches the English sound, being purely surd but unaspirated. *g* was, however, uniformly written by the writer in the word *go(i)*, *two*, given by Velasco as *uo(i)*. This may be a local dialectic divergence, due possibly to the example of Papago *go-k*.

The affricative *tc* is suave and unaspirated. Several times it was written as intermediate *tc-dj*, but was never confused with *ts*.

Consonants, as already suggested by certain examples, may be of single or double length. Whether all consonants are capable of being doubled is uncertain. Velasco notes this fact and gives examples of words distinguished by single or double *n* and *t*, as *tenne, run* and *tene, murmur*; *matte, manifest* and *mate, supplicate*.

Fourteen consonants are thus suggested for Yaqui. Sapir posits fourteen for original Uto-Aztekian. Of these fourteen, ten, *w*, *y*, *m*, *n*, *l*, *s*, *h*, *t*, *k*, and *tc* have exact reflexes in Yaqui. There remain to be considered *η*, *tl*, *p*, and *kw* in Uto-Aztekian and *r*, *v*, *p*, and *bw* in Yaqui.

η is found only in certain Shoshonean languages, being missing in other languages as well as in the Sonoran and the Nahuatl languages, except incidentally before palatal stops. In other cases it is replaced by *n*. It is doubtful, therefore, if it be primary in original Uto-Aztekian.

tl, on the other hand, is found only in certain Nahuatl languages. Other dialects and all other Uto-Aztekan languages replace it with normal *t*. It seems a more rational explanation, therefore, to consider *tl* as developed from *t* in Aztec under as yet unelucidated rules.

Uto-Aztekan *p* is probably replaced by its reflex *v* in Yaqui, although the writer has not found sufficient correspondences to make this certain. At other times, however, *p* seems to be retained in Yaqui, as *pusim*, *eyes*. It is possible that two original sounds are to be posited for original Uto-Aztekan in place of the single *p*. For, notwithstanding the fact that *v* seems to be the normal reflex in Papago and Tepecano as well as in Yaqui, the writer has recorded a *p* in addition to *v* in all three of these tongues. It may be possible that consonants of doubled length, a phenomenon common also to many Uto-Aztekan languages, may have obtained in the original tongue and be the cause of the varying reflexes. Velasco, as has been noted, employs *b* as well as *v* and *p*. It is uncertain whether his *v* and *b* are to be differentiated.

kw presents an interesting shift. While the writer recorded no instance of it, many instances in Velasco show indubitably that it has its reflex in Yaqui *bw*, written by Velasco as *bu*. This seems to be the first step in the direction of the greater change to *b* found in the Piman group.

Nahua (Simeon)	Yaqui (Velasco)	Tepecano (Mason)	
qua	bua		eat
cui	buise	bö	take
qua·uh-tli	buuae	ba'a·g	eagle
	buasia	bai	tail
cuítla-tl	buita	bit	excrement

The reasons for giving *r* a place in Yaqui apart from *l* have been stated already. In practically all Uto-Aztekan languages *l* and *r* are closely related and only one original sound is posited for Uto-Aztekan. Worthy of consideration, however, is the large number of languages in which observers have written both *l* and *r* (Tepehuane, Tepecano, Cora), as well as those which distinguish *r* and *rh* (Lower Pima and Heve). More striking yet is the fact that Papago has two very variant reflexes of Tepecano *r*: *l*, which was frequently recorded as *r* by the writer, and *t*. Unless these very varying reflexes can be explained on phonetic grounds, it may be necessary to posit two precursors for them in Uto-Aztekan.

Yaqui has therefore retained its phonetic scheme comparatively close to the original type, apparently making only two certain shifts, *p* to *v* and *kw* to *bw*. By contrast, the Piman group, in addition to the vowel shift *e* to *ö*, has made six consonantal shifts. A complete series of sonant stops has been built up by the changes of *kw* to *b* (a further development of the Yaqui shift, examples of which have already been given), *y* to *d* and *w* to *g*.

Nahua (Simeon)	Yaqui (Velasco)	Tepecano (Mason)	
ye-tl	yena	dön	smoke tobacco
yaca-tl	yeka	da·k	nose
	iaha	dada	arrive many
	iooco	du·r	jaguar
	iuco	du·k	rain
	<i>iurasno</i>	Sp. <i>durazno</i>	peach
uei	we	gö	large
ome	woi	go·k	two
uetzi	huechec	göc	fall

Furthermore, the *p* to *v* shift is fully active in the Piman group, *tc* has been shifted to *s* or *c*, and *s* to *h*. This latter process was evidently just beginning in Yaqui, as witness Velasco's statement that in certain regions *s* before a consonant was replaced by *h*. This is a phonetic change of widespread occurrence. It has become fully functional in French, is frequent in Spanish dialects, and is found in Dogrib and Slavey, northern Athabaskan languages.

PHONETIC PROCESSES

The writer's notes are too short to warrant the suggestion of any phonetic laws. Velasco states that the assimilation of vowels is very important, particularly when two vowels fall into contact. Interpolation of consonants and vowels for phonetic euphony is also a frequent process, *r*, *t*, *k*, *l*, *le*, and *a* being thus interpolated.

MORPHOLOGY

Yaqui, naturally, follows the general type of Sonoran languages, agreeing with all in some respects but displaying many individualities in details.

The most essential elements are the noun and the verb.

THE NOUN

The usual Yaqui nominal stem is polysyllabic and dissimilar from verbal stems. Nominal stems never combine. Nominal and verbal stems may be combined to form a verb of special significance, but the incorporation of the nominal object in the verbal complex is not a functional process.

Formation of Nouns

Most nominal stems are intrinsically so, but in addition a large class of nouns are formed from other nouns, verbs, or other parts of speech. This is achieved solely by the suffixation of certain elements. A list of those enumerated by Velasco follows, the examples, as uniformly hereafter, being from the writer's personal notes.

- wa, -rawa, suffixed to substantive nouns, adjectives, and verbs forms abstract nouns, as *humanity*, *evil*, *love*.
- i, -ri, suffixed to verbs forms substantive nouns, as *word*, *voice*, *gift*.
- iria, -ria, -ia, suffixed to verbs forms substantive passive nouns, as *fugitive*, *absent one*.
- ia, suffixed to verbs forms instrumental nouns, as *hammer*, *rope*.
- me, suffixed to verbs forms instrumental *nomen actoris*, as *cup*, *pen*.
- ye, suffixed to verbs signifies the action of an intransitive verb or the object of a transitive one, as *sleep*, *beloved*.
- me (*nomen actoris*), suffixed to verbs signifies the effect of the action of the verb, or the performer of the act, as *love*, *food*, *drink*, *instruction*, *lover*.
- kamakua'kame Those to whom they were not given
- asua'kame Those who had children
- ra, -i, suffixed to verbs signifies the habitual performer of the act, as *drunkard*, *glutton*, *clown*.
- po, suffixed to verbs signifies the time for or of doing the act
- u, suffixed to verbs signifies the former doer of the act, as *he who formerly loved*
- kau, -tukau, suffixed to nouns, signifies the former existence of the object.
- po, suffixed to nouns signifies *place of*.

Plural

Nominal stems are altered in but one way, by the formation of the plural. All nouns form their plurals by the suffixation of *-m* under various phonetic rules.

<i>pasapo'rtēm</i>	passports	<i>ye'kam</i>	noses
<i>familiam</i>	families	<i>na'kam</i>	ears
<i>anima'nim</i>	animals	<i>pu'sim</i>	eyes
<i>vemasuam</i>	their children	<i>ko'mim</i>	arms
<i>ilitcum</i>	small dogs	<i>ma'mam</i>	hands
<i>yo·rim</i>	Mexicans	<i>wo·'kim</i>	feet
<i>hya'kim</i>	Yaquis	<i>iliu'sim</i>	small boys
<i>ko'vam</i>	heads	<i>to'mam</i>	legs

A collective plural is formed by the suffixation of *-me*.

The plural may also be formed, under what conditions Velasco does not state, by reduplication. Doubtless some phase of the iterative is thus expressed.

These two methods of forming the plural, by an *-m* suffix and by reduplication, seem to be characteristic of Uto-Aztekan. The Piman group of languages, as usual, seems to have diverged the most, having lost the *-m* plural entirely, except in such stereotyped cases as the plural of the second and third personal pronouns. Plurals are formed exclusively by reduplication. This appears to be characteristic of Eudeve and Tarahumare also. Nahuatl, like Yaqui, seems to employ *-me* as its principal pluralizing suffix, but also reduplicates in certain conditions. Cora employs various suffixes while Opata seems generally to dispense with any plural.

The Yaqui nominal complex may be augmented by two means: prefixed pronominal elements denoting possession and suffixed postpositional elements denoting the usual prepositional relations. Both of these are firmly welded to the stem, a fact noted by Velasco.

Pronominal Possession

The pronominal elements, according to Velasco, with examples from the writer's notes, are:

	<i>Singular</i>		<i>Plural</i>		
1. in-	in-xwo'awi	to my house	-item	ito'ñ-kova	our head
	i'n-kova	my head			
2. em-	em-kova	thy head	-em	e'ntcim-kovam	your heads
3. a-	a-hwa'awi	to her house	-vem	ve'm-asuam	their children

The denoting of pronominal possession by means of prefixed elements more or less distantly related to the independent pronouns is one of the most constant elements of the Uto-Aztekan languages. *n* is the common and vital element in all the pronominal prefixes for the first personal singular in all the Sonoran languages, Nahuatl and Ute. *e*, *i*, and *o* are the accompanying vowels. *m* is likewise uniform for the second singular with vowels in *e*, *i*, *o*, and *u*, with the exception of Cora, which is reported to utilize *a* alone without *m*. For the first plural, the element is regularly *t*, generally with the vowels *a*, *i*, or *o*. The second plural most frequently contains the *m* of the singular form with a different vowel, this holding true for Pima, Papago, Tepehuane, Tepecano, Opata, Eudeve, Tarahumare, Nahuatl and Ute. Cora retains the *m* in this case. It is in the third person that the greatest differentiation is found. In the singular, the Piman group deviates radically—as it does in many other respects—by adopting a possessive suffix in place of a prefix. The others employ prefixes in which there is no common element. The third plural is uniformly formed by prefixes which possess little in common.

No other nominal prefixes are found in Yaqui.

Postpositions: Case Ending

Velasco states that the relations expressed by the Latin oblique cases—genitive, dative, accusative, and ablative—are expressed in Cahita by the use of the case suffix *-ta* when the stem ends in a vowel and *-e* when it ends in a consonant. These are used equally with nouns and pronouns. Whether this is a true case ending or a very general and comprehensive postposition, the writer is not in a position to say.

ye''e-m-ta (They watch that) dancer

Velasco enumerates some forty postpositions which need not be transcribed here. He divides them into groups: 1, those suffixed to the ablative of pronouns, or some to the nominative and some to the oblique forms of nouns; 2, suffixed to the ablative of pronouns together with the preposition *tzi*, or to the oblique form (nominative in one case) of the noun; 3, those suffixed to the genitive of pronouns or nouns; 4, those which rarely or never are found with pronouns but are used with nouns about equally in the nominative or oblique form; 5, those which possess an adverbial sense.

ahwa'a-wi	to her house
i'nxwo'a-wi	to my house
<i>anima'nim-ve'nesia'</i>	like animals

THE VERB

The verb is the heart of the Yaqui sentence, though the verbal complex is not so comprehensive and all expressive as in many other American languages, even some of the Sonoran group.

Verbal stems are generally polysyllabic or disyllabic. Combinations of verbal stems are frequent, combinations of verbal with nominal stems less so.

Formation of Verbs

Verbs may be formed from nouns and other parts of speech, but these processes are considerably fewer in number than those by which nouns are formed. Velasco lists the following:

- k*, suffixed to nominal stems indicates possession of the object.
(?) asua-k-a-me. Those who had children.
- te*, suffixed to nominal stems signifies to make the object named.
- re*, suffixed to substantive nouns, adjectives or adverbs signifies to consider a person or thing to be of the character indicated by the nominal stem.
- u*, suffixed to nouns signifies to go to secure the object indicated.
- tuc*, -*yec* (verbs to be) suffixed to nouns and adjectives signify to convert into the designated object.

The verbal stem is modified in but one way, by reduplication to express iterative and frequentative senses.

The verbal complex may be augmented by prefixes or suffixes, the former expressing certain pronominal relations, the latter tense and modal relations.

Verbal Suffixes

Modal

- <i>ua</i> , - <i>wa</i> , passive	
am-ma' <i>k</i> -ua'- <i>k</i>	(they) were given to them
k-am-mak-ua'-ka-me	those to whom they were not given
to'i-wa-ka	(they) were gathered together
saka'-wa'- <i>k</i>	(they) were carried away
am.-u''a-wa'- <i>k</i>	(they) were taken away from them
- <i>suk</i> , completive, intensive	
- <i>tua</i> , compulsive, causative	
- <i>ria</i> , - <i>ia</i> , applicative	
- <i>yina</i> , intention	
- <i>oove</i> , frustration	
- <i>neka</i> , auxiliary, to do in conjunction with another.	
- <i>yaa</i> , auxiliary, to assist another in the deed.	
- <i>tutu</i> , usitative.	
- <i>taite</i> , inceptive.	

-tevo, mandatory	
-bu, imperative plural	
-wawa, -na, -yo, optative	
-wawa, -na, -eyai (active), -ewai (passive), subjunctive	
a'-aví'tcu-ne	that (they) may see him
-ma, indirect command	
-vare, desiderative	
si'm · ba(i)	she desires to go
ka-a'-sim'-bai	do you not wish to go?
ne'spo si'm-bai	I wish to go
ka'-an-amaŋ-we-vai	I do not wish to go there
k-aman-we-vai	(I) do not wish to go there
i'nepo a'man we · -vai	I wish to walk there
i'nepo ko't-vai	I wish to sleep
-taya, potential, know how to do something	
-roka, indirect discourse (?)	
-se (sing.), -vo (plu.), go to do	

Several other suffixes are given by Velasco to be used in the protasis and apodosis of conditional and other clauses, as:

-teka, used after if and before	
-kari, used after as, when, although, afterwards	
-teka, -tuka, used after because	
-varekari, -rokakari, -poeya, used after for and so that	
-yo, -ko, -kako, used after if, before, as, when, although, after	

Tense

All qualifications of tense are designated in Yaqui by the use of suffixes, as follows:

-k, preterit	
am-nai'kim-te-'k	(they) divided them
am-mi · 'ka-'k	(they) gave them
n-o'iti-k	I went
aman si-ka	he went there
i'nepo ka-ni-aman-no'iti-k	I did not go there
i'nepu a'man no'itiki	I went there
i'nepo ko'te · u-k	I slept

See also the examples given for the passive, all of them preterit.

There seems to be the greatest divergence among the Uto-Aztekan languages in the formation of the preterit, probably the most important and frequent of the tenses. A suffixed element is most frequently employed, but these differ greatly, Tarahumare agreeing most closely with Yaqui by employing the suffix *-ka*. Opata and Eudeve appear to use entirely different suffixes. As usual, the Piman group of languages is the most variable, but, not as usual, remarkably

analogous to the Nahuatl process. Both employ a prefix, quite unrelated, together with a clipped form of the verb stem.

- nake*, future
- nawa*, future passive
- n*, imperfect. (Mayo uses -*i*, and Tehueco -*t*)
- kan*, pluperfect. (Mayo uses -*kai*, and Tehueco -*kat*)
- te*, future intention
- n*, future mandatory
- su-nake*, future perfect

Verbal Prefixes

The few verbal prefixes indicate objective relations. The most important ones are:

- hi-*, indefinite neuter object
hi-po'na, he strikes it (plays harp)
- yore-*, indefinite personal object
- ne-*, indefinite personal object. (Used only with the verb sawe, *command*)
- a-*, *am-*, definite personal object. These are tantamount to being the singular and plural of the third personal pronominal object. They are, however, the only persons thus prefixed and probably are not entitled to be considered as pronouns. They are used only when the nominal plural is not mentioned, or when it lies far distant from the verb. The pronominal subject, a definite pronoun, may be interpolated between these and the verb stem.

Certain adverbs, particularly those of location, are frequently prefixed closely to the verbal stem and practically serve as locative prefixes.

na'uto'iwaka, they were gathered

Pronominal Relations

It is doubtful if the pronoun, either as subject or as object, is to be considered as a part of the verbal complex. The writer has nothing bearing on this topic in his few notes, but the remarks of Velasco seem to indicate that they are not an integral part of the verbal complex.

The subject pronoun is expressed either by the full independent form, as:

ne'po ahwa'awi no'itik	I went to the house
i'nepo a'man we · 'vai	I wish to walk there
i'nepo ko'te · uk	I slept
ne'spo si'mbai	I wish to go

or by semipronouns, which are clipped varieties of the independent forms and are never used alone, as:

porke ne te'vaure	Because I am hungry
ha'n-te' ama'ni	Let's go there
ka-n-amaŋ-weva	I do not wish to go

These examples seem to be integral prefixes of the verb complex, but Velasco states as one of his most infallible rules, that the pronominal subject *must* be the second word or element in the sentence,³ so that, if the sentence contains *only* verb stem and pronominal subject, the latter follows the verb stem. At other times it is absolutely separate from the verb as, to give his example, *cate Diosta suale*, "Not-thou God-in believest?" in which -(t)e is the semipronoun of the second person singular. So unexceptionable is this rule, according to Velasco, that the semipronoun will fall between what cannot but be considered as integral parts of the verb complex, as *cot-ne-vare*, "Sleep-I-wish;" *am-ne-eria*, "Them-I-love." Grammatical classification is at best an academic question, but it is difficult to classify elements, apparently enclitics of some kind, which may stand either after a verb stem, between a verb stem and its morphological suffixes, or be separated from the verb by means of a noun with postposition or case-ending, as in the above examples. Other examples, with the elements in the order given, are: "Here *I* tomorrow will-come" and "Tomorrow *I* here will-come."

The pronominal subject is, then, best considered as independent or at best enclitic to any part of speech. These semipronouns are:

<i>Singular</i>	<i>Plural</i>
1. ne	te
2. e	em
3. (nothing)	im

The pronominal object, of which the writer has no certain examples in his notes, appears, judging from Velasco, to be not expressed in the verbal complex. Velasco gives no semipronouns for the objective forms, as he does for the subjective and possessive relations, but implies that the pronominal object is always expressed by the accusative form of the independent pronoun.

If the definite personal objectives -*a* and -*am* are to be considered as pronouns, they form an exception to this rule, being, apparently, prefixed to the verbal complex.

PRONOUNS

As noted, most of the pronominal relations are expressed, according to Velasco, by independent pronouns which vary according to case. The writer has no material to controvert this. Velasco gives these case forms for the various persons and numbers in full. They

³ This is also the rule in Luiseño, in which an accentless fusion of semipronoun and modo-temporal element is enclitic to the first word in the sentence, even if this should happen to be the independent pronoun used for emphasis.

need not be copied in extenso here. Frequently several case forms of a given pronoun are identical, but there appears to be no uniformity or agreement between the various forms of any given case. The independent subjective (nominative) forms appear to be

<i>Singular</i>	<i>Plural</i>
1. inopo, nehe, neheri	itopo, itee, iteriwa
2. empo, ehee, eheri	empom, emee, emeri
3. wahaa, wahari ahaa, ahari	that the same
. ihii, ihiri huhuu, huhuri	this this
	wamee, wameri amee, ameri ime, imeri humee, humeri

ADVERBS

Adverbs are normally independent parts of speech. They may be formed from other parts of speech, as:

-siwa, suffixed to adjectives, forms adverbs

Certain particles are intimately connected with verbs but, apparently not being parts of the verbal complex, must be considered as adverbs. Principal among these are the interrogative *ki* and the negative *k(a)*. The former is always first in the sentence and may be separated from the verb by the nominal subject. The negative particle seems also not to be a prefix but independent.

i'nepo	ka'n·i	a'man	no'itik
I	not I	there	went

ADJECTIVES

Many adjectives are independent stems, as they are independent parts of speech. Others are formed from other parts of speech, mainly from verbs.

-ri, -i, suffixed to verbs forms adjectives of the type of perfect participles, as *loved, eaten, measured*

-machi, -wawa, -tu (with the prefixed particle *ara-*), -tsi, suffixed to verbs form adjectives of the type of -able, as: *eatable, potable, credible, visible, dangerous*

-la, suffixed to verbal adjectives, more rarely to substantive nouns, lends an habitual, usitative sense to the adjective, as: *lazy, strong, lame, deaf, garrulous*

PARTICLES

Two particles are suffixed to various parts of speech to lend emphasis. They had probably best be considered as enclitics.

-wa, suffixed to nouns, pronouns, adverbs, postpositions and conjunctions

-liwa, suffixed to adverbs and postpositions

TEXTS AND ANALYSIS

THE YAQUI INSURRECTION

hu'nako	<i>ti'empo</i>	si''ime	hume	hy'a'kim	na'u
Once	time	all	those	Yaquis	together
to'iwaka	si''ime	<i>pasaportem</i>	ama'kuak	hu'me'e	ka .'
were gathered.	All	passports	were given them.	Those	no
<i>pasapo'rtim</i>	kamakua'kame	nuk	saka'wa'k <i>i'La</i>	yukata'n	wa'me'e
passports	who were not given	were taken	island	Yucatan.	Those
<i>familiam</i>	asua'kame	amu.'awa'k	iliu'sim	<i>anima'nim</i>	ve'nesia' me
families	that had children	were taken away	small boys	animals	like.
vemasuam	<i>govie'rnu</i>	ilitecum	amnai'kimte'k	ume	yo 'rim
Their children	government	small dogs	distributed them.	Those	Mexicans
am i · k a'k	yo'uwe				
gave them	the large.				

TRANSLATION

Not long ago all the Yaquis were gathered together. Passports were given to them. Those who did not get passports (because they refused to surrender) were taken to the island (*sic*) of Yucatan (when captured). The families with children had their little boys taken away like animals. The government distributed their children (like?) little dogs. They gave the older ones to the Mexicans.

ANALYSIS

hu'nako	Temporal adverb. NOT LONG AGO. hunac hubuat heuela, Spanish <i>no ha mucho tiempo</i> , 345 ⁴
<i>ti'empo</i>	TIME, Spanish <i>tiempo</i>
si''ime	Noun. Demonstrative adjective. ALL. I am unable to find this word in Velasco, but it occurs several times in the text. The final -me is probably the sign of plurality, 132
hume	Demonstrative pronoun, third plural. THOSE. humee, <i>estes</i> , 156
hy'a'kim	Plural noun. Stem probably hyaki, YAQUI; -m, plural suffix, 132
na'u	Adverb or possibly part of verb stem. TOGETHER. hautzi, <i>juntamente</i>
to'iwaka	Preterit passive verb. Stem probably toi, GATHER. Possibly should be combined with preceding adverb. naatoha <i>recoger lo esparcido</i> , nauatoha, <i>juntar una cosa con otra</i>
si''ime	-wa-, passive suffix, 27; -ka, preterit suffix, 1
<i>pasaportem</i>	Demonstrative adjective. ALL. Cf. supra
	Plural noun. PASSPORTS. Spanish <i>pasaporte</i> . -em, plural suffix, 132

⁴ Numbers refer to paragraphs in Velasco.

ama'kuak	Preterit passive verb. am-, probably third plural pronominal object, 175; mak, stem GIVE. One of the most uniform of Uto-Aztekan stems, found also in Salinan and some other extra-group languages. Velasco gives amaca, <i>dar</i> , to which Buelna has appended the footnote, "Es el verbo <i>maca</i> con el pronombre relativo <i>a</i> , que suele anteponerse a los verbos en este vocabulario." In his Yaqui-Spanish vocabulary, Velasco gives <i>maca</i> , <i>mica</i> , <i>dar</i> . -ua-, passive suffix, 27; -k, preterit suffix, 1.
hu'me'e	Demonstrative pronoun, third plural. THOSE. Cf. supra
ka..'	Probably negative adverb. No. caita, <i>nada</i> , <i>ninguno</i>
pasaportim	Plural noun. PASSPORTS. Spanish <i>pasaporte</i> . -im, plural suffix, 132; cf. supra
kamakua'kame	Nominalized verb, <i>nomen actoris</i> . k (a)-, negative particle, probably proclitic, 85; mak, stem GIVE (Cf. supra); -ua-, passive suffix, 27; -k-, preterit suffix, 1; -(a)me, substantive <i>nomen actoris</i> suffix, 257
nuk	Uncertain. I am unable to analyze this word. It may be a proclitic or prefix of the following verb:
saka'wa'k	Preterit passive verb. Stem <i>saka</i> , MANY GO. <i>saca</i> , <i>saha</i> , <i>irse muchos</i>
	-wa-, passive suffix, 27; -k, preterit suffix, 1
i'la	Noun. ISLAND. Spanish <i>isla</i>
yukata'n	Noun. YUCATAN. Spanish <i>yucatan</i>
wa'me'e	Demonstrative pronoun, third plural. THOSE. <i>uamee</i> , <i>aquejellos</i> , 153
familiam	Plural noun. FAMILY. Spanish <i>familia</i> . -m, plural suffix, 132
asua'kame	Possessive verbalized noun. <i>asua</i> , stem CHILD (Cf. infra); <i>asoae</i> , <i>hijo o hija de la hembra</i> . -k-, verbalizing nominal suffix denoting possession, 63; -(a)me, substantive <i>nomen actoris</i> suffix, 257
am.u."awa'k	Preterit passive verb. am-, probably third plural pronominal object, 175; u'"a, probable stem CARRY. I am unable to find this word in Velasco, but it is probably cognate with Tepecano ('ua('), BE CARRYING. -wa-, passive suffix, 27; -k, preterit suffix, 1
iliu'sim	Diminutive plural noun. ili, adjectival proclitic (?), SMALL. I am unable to find <i>ili</i> alone in Velasco, but several instances in combination are given, as <i>ili totoli</i> , <i>pollo</i> ; <i>ilit hehue</i> , <i>chica cosa</i> ; <i>ilichi</i> , <i>pequeño</i> . -usi-, stem BOY. usi, <i>muchacho</i> . -m, plural suffix, 132
anima'nim	Plural noun. ANIMAL. Spanish <i>animal</i> . -im, plural suffix, 132
ve'nesia'	Postposition. LIKE. <i>vena</i> , <i>venna</i> , <i>como</i> , <i>á la manera que</i> ; <i>siua</i> , <i>como si</i> , <i>á la manera de quien</i>
me	Unidentified. It was written as proclitic to following:
vemasuam	Possessed plural noun. vem-, third plural possessive pronoun, 172; <i>asua</i> , stem CHILD (Cf. supra); -m, plural suffix, 132
goviernu	Noun. GOVERNMENT. Spanish <i>gobierno</i>
iliteum	Diminutive plural noun. -ili-, adjectival proclitic (?), SMALL (Cf. supra); teu, stem DOG; chuo, <i>perro ó perra</i> . -m, plural suffix, 132
amnai'kimte'k	Preterit verb. am- third plural objective pronoun, 175; naikim, probable stem, DIVIDE; <i>naequmhinencia</i> , <i>repartir algo</i> . -te-, unidentified; -k, preterit suffix, 1.
ume	Demonstrative pronoun, third plural. THOSE. Cf. supra
yo.'tim	Plural noun. yo·ri, Stem MEXICAN; iori, <i>Español</i> , <i>fiera</i> , <i>valiente</i> . -m, plural suffix, 132

- am·i·'ka'k Preterit verb. am-, third plural objective pronoun, 175; mi·ka, stem GIVE. maca, mica, *dar*. -k, preterit suffix, 1
- yo'uwe Substantive adjective. yo'u, uncertain, probably demonstrative of some kind. -we, stem GREAT. I am unable to find this in Velasco, but it is practically identical with Nahua *uei* and relates to Tepecano *gō* by regular rules. buere, *grande hombre*

THE PASCOLA

paseo"la	ama'a	ye'e	aparē'u	lavele'u	hipo'na	hu'me'e
The Pascola	there	dances.	Harpist,	violinist	plays.	Those
yue'm·e	a'avī·'teu	hu'ka'a	ye"emta	i'ntoku	si"ime	ye'na
being there	watch	that	dancer.	Also	all	smoke
a'ma'	ane'me	hu'len	ve'tei'ivu	volo'teva	pa'rake	si"ime
there	being	thus	for	wedding,	in order that	all
huhe'nte	a'ma'w	ane'me	a'avī'teune			
the people	there	being	may see.			

TRANSLATION

The Pascola is dancing there. The harpist and violinist play and all those there watch the dancer. Also all are smoking for the wedding so that all the people may see.

ANALYSIS

- pasco"la Noun. PASCOLA. The *pascola* is the Yaqui tribal dance. The stem is uncertain but most probably is related to Spanish *pascua*, "Easter"
- ama'a Locative adverb. THERE. aman, *alla*
- ye'e Verb. Stem DANCE. ieie, yeie, *bailar*
- aparē'u Noun. HARPIST. Spanish *harpero*
- lavele'u Noun. VIOLINIST. Stem probably adopted from Spanish
- hipo'na Verb. hi-, neuter object, 107; pona, stem STRIKE. ponna, *golpear*
- hu'me'e Demonstrative pronoun, third plural. THOSE. humee, *estos*, 156
- yue'm·e Probably nominalized verb, *nomen actoris*. I am unable to find this word in Velasco but, judging from the analogy of the two instances of ane'me below, all being translated similarly, take it to be a verb BE THERE with the *nomen actoris* suffix -me.
- a'avī·'teu Verb. a-, probably pronominal object, third singular, 175; avī·'teu, stem SEE, abicha, *mirar*; bicha, *ver*
- hu'ka'a Demonstrative pronoun, third singular objective. HIM or THAT. huca, accusative of huhuu, *este*, 156
- ye"emta Nominalized verb, *nomen actoris*. ye'e, stem DANCE; Cf. supra.
- i'ntoku -m-, probably reduced from -me-, *nomen actoris* suffix, 257; -ta, post-position or possibly case suffix denoting objective relations, 125
- si"ime Conjunction. ALSO. ientoco, *y además de esto*
- Demonstrative adjective. ALL. Cf. supra

ye'na	Verb. Stem SMOKE (active). I am unable to find this verb in Velasco, but it has a perfect analogy, by recognized phonetic shifts, with Tepecano <i>dön</i> , <i>smoke</i> , as well as a closer connection with Nahua <i>ye-tl</i> , <i>tobacco</i>
a'ma'	Locative adverb. THERE. <i>aman, allá</i>
ane'me	Probably nominalized verb, <i>nomen actoris</i> . Stem possibly BE THERE. -me, probably <i>nomen actoris</i> suffix, 257. I am unable to find this word in Velasco and analyze it by comparisons with the translations of the following other instance of ane'me and the preceding example of yue'me
hu'len	Adverb. THUS. "Huleni significa así, en sentido simulativo," 367
ve'tci'ivu	Postposition. For. <i>vetzivo, por, para, propter</i> , 320. I am unable to explain why the postposition precedes the noun, but feel that it must be an error
volo'teva	Noun. Uncertain stem, WEDDING. This may be an adaptation from Spanish <i>boda</i> . Velasco gives <i>buatoha, bodas de mujer; sahinenca, bodas de hombre; emohube, matrimonio</i>
pa'rake	Adverbial clause. IN ORDER THAT. Spanish <i>para que</i>
si"ime	Demonstrative adjective. ALL. Cf. supra
huhe'nte	Noun with article. hu-, probably reduced from <i>huhuu, este</i> . THIS. hente, noun stem PEOPLE. Adopted from Spanish <i>gente</i>
a'ma'w	Locative adverb. THERE. <i>aman, allá</i>
ane'me	Probably nominalized verb, <i>nomen actoris</i> . Cf. supra. BE THERE
a'av'i'tcune	Verb. Cf. supra. -ne, probably subjunctive suffix

PLANTS USED IN BASKETRY BY THE
CALIFORNIA INDIANS

BY

RUTH EARL MERRILL



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INTRODUCTION

In undertaking, as a study in economic botany, a tabulation of all the plants used by the California Indians, I found it advisable to limit myself, for the time being, to a particular form of use of plants. Basketry was chosen on account of the availability of material in the University's Anthropological Museum. Appreciation is due the members of the departments of Botany and Anthropology for criticism and suggestions, especially to Drs. H. M. Hall and A. L. Kroeber, under whose direction the study was carried out; to Miss Harriet A. Walker of the University Herbarium, and Mr. E. W. Gifford, Associate Curator of the Museum of Anthropology, without whose interest and coöperation the identification of baskets and basketry materials would have been impossible; and to Dr. H. I. Priestley, of the Bancroft Library, whose translation of Pedro Fagés' *Voyages* greatly facilitated literary research.

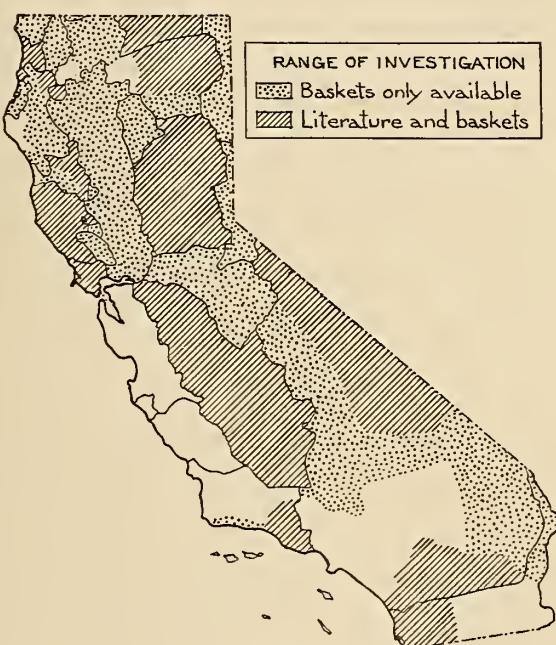
Purpose of the study.—There is perhaps no phase of American Indian culture which is better known, at least outside strictly anthropological circles, than basketry. Indian baskets are not only concrete, durable, and easily handled, but also beautiful, and may serve a variety of purposes beyond mere ornament in the civilized household. Hence they are to be found in our homes as well as our museums, and much has been written about the art from both the scientific and the popular standpoints. To these statements, California, where American basketry reaches its highest development, is no exception. Comparatively little attention has been paid, however, to the plant materials composing the baskets. Popular literature ignores them, or treats them so generally that the record is worthless for exact data; scientific papers, intent on weaves and designs, merely mention materials; while the few strictly botanical studies of plant fibers used in this way limit their scope to particular detached tribes. The

two-fold purpose of this study has therefore been not to present new material, since field work was impracticable, but, first, to gather and summarize what has already been written on the subject of plants used by the California tribes in basket-making, corroborating and supplementing these records from the baskets and prepared materials in the California collection of the University of California Museum of Anthropology; and second, to find what relation exists between the actual distribution of these plants and their use in basketry.

Materials and method.—The lists of plants gathered from literature of various sorts dealing with California Indians—travelers' accounts, botanical and anthropological treatises, and the like—formed a basis for analysis of the baskets. In many cases the collections include prepared materials. These were identified more or less positively by comparison with specimens in the University Herbarium, and their distribution plotted from Herbarium sheets and California floras. The Museum catalogue furnished data as to tribes and kinds of baskets, and frequently gave valuable information as to identity of materials, although in the latter respect it was not always reliable. The study has included identification of the materials of 1848 baskets representing thirty-seven tribes or groups and two general areas. Since most tribes use less than ten different basketry plants, all fairly distinctive and many common to several tribes, the analysis has not proved so formidable as at first glance it may appear.

Difficulties.—From the accompanying map 1 it will be seen that several considerable areas of the state are not represented either in literature or by specimens. It is probable that these "islands" of the extreme north and southeast do not differ materially in their basketry from surrounding tribes, but are substantially covered by the general literature on Northwestern and Southern California. It is of graver consequence that we have neither baskets nor records, except of the most general nature, from the coastal strip north and south of Santa Barbara county; for tribes here, early absorbed by the missions, have vanished with their basketry, and it is doubtful whether the blank can ever be filled. The fact that aboriginal baskets taken from a cave in the Santa Barbara interior and estimated to be over a century in age are identical in structure and material with present-day Cahuilla ware, points strongly to the use of the same plants in the intervening area; but there is no such clue to the usage between Point Concepcion and San Francisco bay.

A more fundamental difficulty lies in the great difference in available material for various tribes. The Museum collection shows only one Chimariko basket as against forty-seven from the slightly larger Hupa area; fourteen different plants are recorded as used by the Pomo in basketry, while the Wintun, occupying an area four times the size are dismissed with a few lines,¹ and nothing whatever has been written on the Miwok, whose collection of 125 baskets is one of the largest in the Museum.



Map 1

Moreover the materials in old, worn specimens, or even in unused bundles prepared for weaving, bear little resemblance to either the living plant or the carefully pressed herbarium specimen. Often identification must be from touch, texture, suppleness, size of pith, or other technical characters perfectly satisfying to one who has handled numbers of baskets, but utterly unbotanical. And even here there is abundant room for error, especially in dyed or otherwise treated materials. The peeled hazel and willow of Northwestern California, with their smooth surfaces, bear little resemblance to the scraped, angular withes of the Miwok. Black dyes vary so in intensity

¹ Kroeber, A. L., 1905, p. 143.

and permanenee that they can hardly be identified in finished baskets except by inference from the locality and the material dyed, while the alder red is unmistakable and, so far as I know, is never applied to anything but the stems of *Woodwardia*. Again, in the pithed water-bottles of the Cahuilla and Chumash, and in all fine twined or coiled work, it is practically impossible to positively identify the warp or foundation without undue mutilation of the basket.

Conclusions.—In spite of these difficulties, the amount of material, both written and actual, that has been handled seems to warrant a discussion of basketry plants of the state as a whole. The results of the first line of attack, statistical in nature, comprise the appendix, and it is hoped that future investigations will round it into a complete list of basketry plants used in this state. The more theoretical problem of whether the selection of basket materials depends on their distribution or on the technique employed has not resolved itself so easily. What the chief fibers are, how their geographical distribution compares with that of their use, what conclusions may be drawn, and what remains still in question, it is the purpose of this paper to discuss.

CALIFORNIA BASKETRY

Plant materials.—Seventy-eight different species of plants representing thirty-six families have been identified among the basket materials of California tribes, a remarkably small number in the total flora of the state and in the list of plants used by the Indians, whose faculty of turning everything in their natural environment to some purpose is well known. When we recall that many of these plants are used only slightly, or in restricted areas, the range of choice becomes still narrower.

Parts used.—There seem to be no portions of the plant, however, which do not sometimes serve as basket materials. Alder, fern and tule roots, young shoots of willow and hazel, bark and sapwood of redbud, culm of *Epicampes* and *Phragmites*, leaf of the fan palm, pod of the Devil's horns (*Martynia*), water lily seed, and even pith from *Pinus monophylla* all have their place. Sometimes but a small portion of the whole plant is used, as the roots of the various coniferous trees, which form the woof of most twined baskets in the Northwest. Or three different parts of the redbud (*Cercis occidentalis*) may entirely compose a Maidu cooking basket. There are also Klamath baskets in which warp, woof, and three different pattern elements are all of tule (*Scirpus lacustris occidentalis*).

Preparation.—Some plants, such as the grass, *Epicampes rigens*, which forms the foundation in southern California coiled baskets, are always used in their natural state, or merely dried and stored until needed. In the large willow storage baskets of the Cahuilla, the leaves are not even stripped from the stems which form both the indeterminate warp and woof. Most materials, however, require some elaboration. Except in the rougher twined baskets, bark is removed from willow, hazel, or redbud withes, either by peeling with the teeth when it is loose in spring, leaving a smooth surface; or by scraping, which produces a rough, angular one. Conifer and sedge roots are split into flat strands. The white sapwood of the redbud and willow are also split off from the red outer bark, which is used for patterns, and from the pith. Among the Yurok maidenhair fern stems are pounded with a stick until they break apart into long flat strands. Dyeing may be accomplished by boiling, as in the blackening of *Pteris aquilina* and Redbud bark; by soaking in an infusion, by which means *Juncus* is dyed black in *Suaeda*, and yellow in *Parosela*; by chewing with the dyeing material, as the Hupa chew stems of *Woodwardia* with alder bark to reddens them; or by blackening through simple burial in mud and ashes, which is the method having the widest distribution among the California tribes, although not the most effective, nor in all cases the most popular. Among the Klamath, shells of water-lily seeds, containing tannin, are mixed with the mud, and the blackening is the result of chemical action.²

Technique.—Two principal types of weave are found among the California baskets. One is the coiling of the southern tribes and the Pomo, in which one element, the *foundation*, coils around upon itself, each layer being fastened to the one below by stitches of a second element known as the *wrapping*. The foundation varies from a single stem among the Pomo to a bunch of many grass stalks among the Cahuilla. With the Yuki, the dogwood foundation is usually overlaid with flat strands or welts of the wrapping material. Where the wrapping of coiled work is close, a fine basket results, in which the foundation cannot be seen. The Diegueño make coarse plates with widely separated stitching, but in no case are true open-worked baskets made in this style. Twenty-one tribes practice coiling and twining, while fourteen make twined baskets only. In twining, the foundation or warp elements radiate from a common center, and the thread or woof which is usually double, occasionally triple, and in the Northwest

² Coville, F. W., 1905, p. 32.

often double with a separate overlay or facing for each strand, interlaces between the warp sticks. When the woof is single, the process is wicker-work instead of twining, but this weave is very rare in California. The Klamath, with their two-strand twisted tule, are the only tribe using a multiple warp in twining. This is because their warps are of the nature of pliable string rather than rods. The Pomo and some neighboring tribes make a few baskets by coiling, as it were, on a foundation of twining. This, the so-called lattice twine, makes a doubly strong basket. The materials do not differ from those used in the ordinary weaves.

Patterns.—Decoration of some sort is universal, although its elaborateness varies with the tribe, individual maker, and type of basket. The Panamint designs are often crude or lacking, while the neighboring Tübatulabal generally decorate their better baskets most beautifully. There are in the Museum several Wiyot baskets of extremely simple pattern made by a blind woman, in which the personal factor is obvious. Again, openwork seedbeaters and winnowers are as a rule without decoration, but the Washo make patterns on these articles by turning the bark side of the woof and producing an alternation of red (redbud bark) or brown (willow bark) with the white sapwood of the same plant. In most coiled basketry, and in the twined work of the Klamath, Yana, and Wintun tribes, the contrasting color takes the place of, or is passed over, the woof strand, and thus appears on both inner and outer surface. The Northwestern tribes, on the contrary, use the pattern material as a facing of the main strands of the woof, and by failing to twist at each stitch, keep the underlying woof always either covered or exposed only on the outer surface of the basket, no pattern being visible on the inner side.

Colors.—Five colors, black, brown, yellow, red, and white, with their various intergrading shades, occur as patterns in California baskets. In the close-twined work of the northwestern tribes, where conifer root is the almost universal woof, the white leaves of *Xerophyllum tenax* form the most popular pattern on the dark brown background of cooking baskets, or in the fine hat baskets cover it completely to provide a light groundwork on which designs are worked in the black of maidenhair fern stems, the red of *Woodwardia spinulosa* dyed with alder bark, and occasionally strips of *Xerophyllum* dyed yellow in an infusion of the lichen *Evernia vulpina*. White is also the favorite contrasting color with the Indians of Klamath lake. One coiled basket showing white stitches of *Rhus trilobata* on the

greenish *Juncus* wrapping was noted from the Cahuilla; but with these exceptions white is not used in designs because the warp or wrapping—willow, redbud, sedge, or *Rhus*—used over the greater part of the state is itself white.

Yellow is not widely used. At most, in the north it occurs in thirty-one Klamath baskets out of a total of over two hundred. Here the material is porcupine quills in place of *Xerophyllum*, the same dye, *Evernia*, being used; or, very rarely, tule leaf, aged to yellow, forms the pattern. In southern California a yellow dye from *Parosela emoryi* is used to color strands of *Juncus acutus*, and was found in 42 per cent of all the baskets examined. Yellow is totally lacking throughout central California, where red and black predominate.

Red occurs in both natural and dyed materials. Alder bark gives what is really a reddish brown. The Klamath Indians rarely dye tule or porcupine quills a bright pink in the root of an unknown plant. The fiber most widely used for red patterns is redbud bark (*Cercis occidentalis*) gathered during the rainy season³ when it is of a rich permanent color. It is readily distinguishable by its many white lenticels from willow bark (*Salix* sp.) which is sometimes used in the same way, and from yucca root bark (*Yucca mohavensis*) which forms the red design from the Panamint southward.

Black is the most widely distributed color, being used by thirty-one of the thirty-seven tribes, and predominant in eleven. The natural black materials are the shining stems of various ferns, the maidenhair or its substitute, the golden-back fern,⁴ throughout the north, except among the Klamath where the ever present tule furnishes black or red roots for this purpose; the dull sedge root bark figuring wherever the root is used as a wrapping; and the intense black of split *Martynia* pods found among the Mono, Koso, Kawaiisu, Kitanemuk, and Tübatulabal. Artificial blacks are obtained by various means. Burying of warp or woof elements in mud and ashes is practiced by the northern tribes; the Pomo use the juice of poison oak (*Rhus diversiloba*);⁵ the Conecow Maidu, infusion of oak bark (*Quercus lobata*) with rusty iron;⁶ the Cahuilla,⁷ Diegueño, Luiseño, and Chumash used *Suaeda suffrutescens* on the rush (*Juncus acutus*) and juice of elderberries (*Sambucus* sp.) for blackening sumach splints.⁸ Blackberries (*Rubus vitifolius*) are also used by the Luiseño⁹

³ Merriam, C. H., 1903, p. 826. ⁷ Barrows, D. P., 1900, p. 43.

⁴ Chesnut, V. K., 1902, p. 303. ⁸ Barrows, D. P., 190, p. 43.

⁵ Coville, F. W., 1905, p. 36. ⁹ Sparkman, P. S., 1908, p. 232.

⁶ Coville, F. W., 1905, p. 35.

as a non-permanent blackening agent. Roots of the brake fern (*Pteris aquilina*) turn deep black upon boiling, and form the chief black pattern material among the Washo, Miwok, Mono, and Yokuts, and their use extends northwest to the Pomo and south to the Kawaiisu. In a few baskets¹⁰ redbud bark, blackened by soaking with oak bark and old iron, forms black designs.

The untreated root of *Pteris aquilina* is the only strictly brown pattern material, but redbud, yucca, and carex root bark vary toward brown, as do all the dyed fibers, either through usage of the article or insufficient dyeing.

Other pattern materials.—A few tribes depend wholly or in part on other than plant materials for decorating their baskets. Porcupine quills have been mentioned in the Klamath designs. Feathers, chiefly yellowhammer quills or quail plumes, occur rarely among most tribes, and the Pomo use feathers in the patterns of their finer baskets to the exclusion of plant fibers. Their modern baskets are also beaded, as are those of the Wappo. Of other materials obtained through contact with the whites, such as colored cloth, and the red worsted so common in Miwok and Yokuts "bottle-neck" vessels, more will be said in another connection.

Accessory materials.—On the larger cooking baskets of the Northwest area, and in general on those which must undergo a strain, such as mortar hoppers, cradles, and carrying baskets, extra bands of a strengthening nature are fastened. The bands are usually of the same material as the warp or foundation, but sometimes of willow, whose pliability, when green, fits it better than the tougher redbud or more brittle hazel for bending into a hoop, especially when stout branches are used. The bindings for such hoops may be of the woof itself, as is customary among the Tolowa and Hupa; of the pattern material, as the Yana use redbud and *Xerophyllum*, or of a special binding material not otherwise employed in the basket, but serving as rope or cord in other departments of life. Grape stems (*Vitis californica*) are most used in this capacity. Of nine tribes in which binding materials were noted, only three did not use grape. The Klamath

¹⁰ One Yuki, five Maidu. The root of *Scirpus maritima* is given by Barrett (1908, pp. 137, 140) and Purdy (1902, p. 15) as being dyed in mud and ashes for a black pattern element among the Pomo, and by Coville (1905, p. 38) among the Panainint. The black roots in the Museum collection identified as *Carex barbara*, and so given by Barrett as a wrapping material (1908, p. 140), are certainly identical with the pattern material in most Pomo baskets, but could not be associated with herbarium specimens of either of these species.

bind the rims of nearly all their fine cooking bowls, as well as the coarse burden baskets, with a gray nettlebark string (*Urtica breweri*), which is also used as weft in beginning these baskets.

Waterproofing.—Practically all closely woven baskets of both weaves are water-tight. Certain southern tribes, however, render their basketry water-bottles more impervious by pitching them inside with asphaltum (Chumash) or with gum from *Pinus monophylla* (Panamint). A similar practice of slightly different application is the making of conical carrying baskets seed tight among the Yokuts and Miwok by an external application of hot soaproot juice (*Chlorogalum pomeridianum*), which hardens into a thin, brittle sheet. It is possible that both these adaptations mark a transition stage between basketry, which is most highly developed in the northwest, and the related art of pottery, which takes its place from the arid Southeast into Mexico.

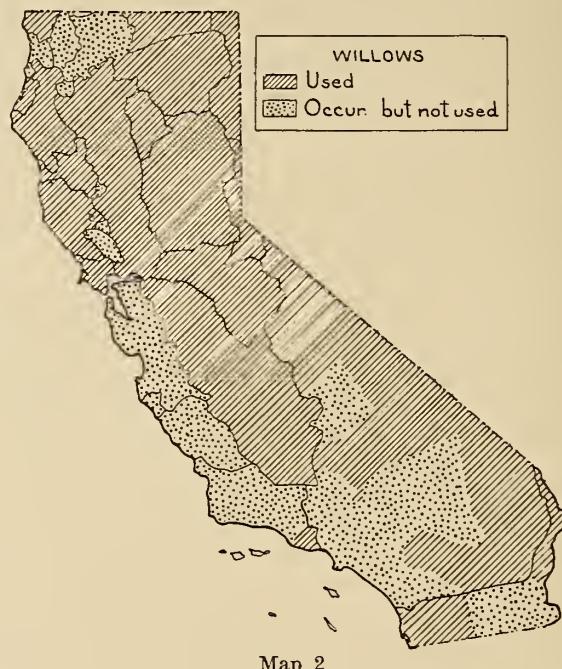
THE CHIEF BASKETRY PLANTS IN RELATION TO DISTRIBUTION

Theory.—In general, plants are used where they occur. There are, of course, a few exceptions to this rule. Chesnut¹¹ states that long stems of *Smilax californica* are brought by the Mendocino county Indians from the Sacramento watershed for use in basketry. The Museum collection of Miwok materials contains a roll of shining red willow bark whose only identification was that it "came from the Mono country;" and there is a Yurok basket with a yellow design in porcupine quills, yet that animal is not found within their territory. But these are exceptional cases, since from the nature of things, plants must occur in sufficient quantity and within convenient reach in order to be popular basket materials. The real question is whether or not distribution is the deciding factor in the choice of basketry materials by a given tribe.

Evidence.—In support of such a conclusion, the Klamath and Modoc furnish a ready example. The entire culture of this people has been built around the fact of their location on the tule marshes of the Klamath lakes. Their clothing, literally from head to foot, their canoes, their household furnishings, including baskets of every description, are constructed wholly or in part of the leaves, stalks, or roots of this one plant (*Scirpus lacustris*, var. *occidentalis*). These

¹¹ Chesnut, V. K., 1902, p. 329.

baskets have many advantages: they are light, perfectly flexible, and therefore able to stand usage at least as well as the stiffer ware of the northwest area whose warp is of resistant twigs. Moreover, in the midst of a group which has carried the technique of firm coiling to its farthest extent, we find the Clear Lake or Eastern and Southeastern Pomo, in surroundings similar to the Klamath swamps, also using tule for basketry and furniture to a considerable degree. Yet these two areas are the only ones in which tule is used to any extent, although it occurs in fresh and salt water marshes throughout the state¹² and often in large quantities.

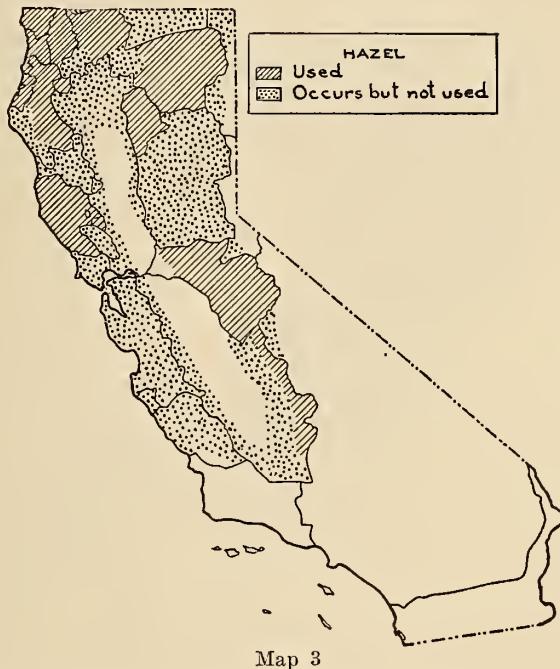


Map 2

Undoubtedly the single genus most widely used in one way and another among tribes is the willow (*Salix* sp.). Among tribes practicing coiling, sixteen use it for foundation and six for wrapping; it is used as warp by nineteen tribes (the chief warp material in thirteen) and as woof in eighteen. In addition to the function of hoop and rim binding mentioned above, willow bark serves definitely as a pattern material for six central tribes, and indirectly, by the alternation of peeled and unpeeled withes, in many others. In but five tribes from which the collections may be considered complete is willow

¹² Jepson, W. L., 1901.

wholly lacking as a basket element. Of these, the Chumash, Diegueño, and Luiseño make even their coarse twined baskets of the same *Juncus* or *Rhus* which they employ in coiled work, while the Tolowa and Hupa use hazel, the universal warp of the Northwestern area. Yet willow grows in the territory covered by each of these tribes (Map 2), so that their failure to use it must be due to the possession of a better or preferred material.



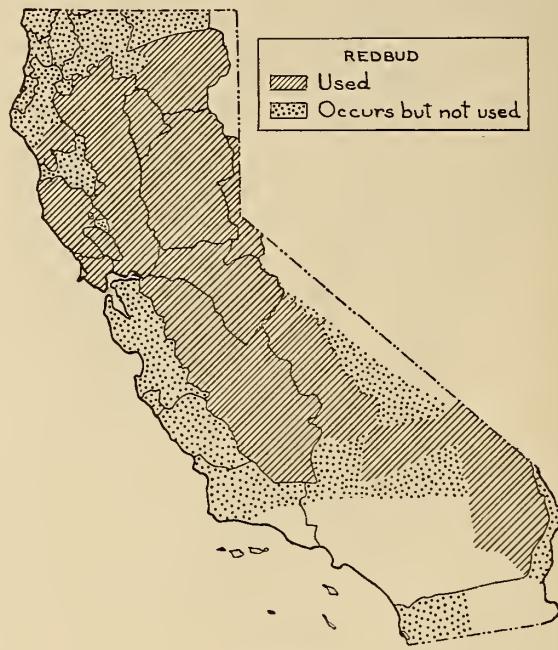
Map 3

The use of hazel (*Corylus rostrata* var. *californica*) as a warp element in twined basketry would seem to bear out this view. Among ten of the twenty-one tribes where it is employed there is no other warp. But its actual distribution, while much more restricted than that of the willows, is far wider than its use¹³ (Map 3).

Taking up more specialized materials, it has been noted that white patterns in the northwest are universally executed in *Xerophyllum tenax*, with one exception, the Lutuami, who use split stems of the

¹³ Barrett, S. A., 1908, p. 138, says that so far as he could determine no preference is shown by the Pomo for one species of willow rather than another. It is probable that this applies to other tribes as well, and that all willows, with the exception of dwarf alpine forms, have the qualities essential to basketry in sufficiently equal proportion to warrant their consideration in this respect as a genus rather than as separate species.

white reed, *Phragmites vulgaris*. Of the two, *Xerophyllum* is certainly the better material, being finer, more flexible, and more durable because it does not crack so easily as the reed. It also grows on Klamath Lake reservation. The obvious explanation for the use of *Phragmites* in preference to *Xerophyllum* is that the former grows on the lake shores along with the chief Klamath and Modoc basket material, tule. Here distribution is secondary to convenience as a determining factor.



Map 4

Another pattern element, of wider usage, is redbud (Map 4), important as foundation and wrapping, but more important for ornamentation. It is far more easily prepared than the alder-dyed *Woodwardia*, which supplants it in the northwest. It is difficult to account for its entire absence from baskets of southern California make, since the herbarium shows specimens from San Diego county; but it may be that the dry climate fails to develop a bright red color in the bark.¹⁴

The restriction of such materials as *Martynia louisiana*, *Yucca arborescens*, and *Washingtonia filifera* to the desert tribes, and of the lichen, *Evernia vulpina*, to the heavily forested areas is of course due

¹⁴ See Merriam, C. H., 1903, p. 826. This point could not be determined, since neither the trees cultivated in the University of California botanical garden nor the herbarium specimens show anything like the decided red bark of the prepared material or basket patterns.

to their limited range and comparative rarity. But *Rhus trilobata* (Map 5), with practically the same usage, is found throughout the state. By way of comparison it might also be said that although porcupines, whose dyed quills are widely used in Klamath baskets, do not occur in the Coast Ranges where yellow patterns are of *Xerophyllum* similarly treated, these animals are sufficiently numerous in the Sierras to furnish quills for the Maidu, Yana, Miwok, and other tribes, who not only do not use them, but have no substitute.

TABLE- 1

RELATION OF USAGE TO DISTRIBUTION OF BASKETRY PLANTS

<i>Distribution much exceeding use</i>	<i>Distribution little exceeding use</i>	<i>Imported materials</i>
1. <i>Rhus diversiloba</i>	1. <i>Corylus rostrata</i>	1. <i>Picea sitchensis</i>
2. <i>Rhus trilobata</i>	2. <i>californica</i>	2. <i>Smilax californica</i>
3. <i>Berberis nervosa</i>	2. <i>Alnus rubra</i>	3. <i>Sequoia sempervirens</i>
4. <i>Alnus rhombifolia</i>	3. <i>Scirpus lacustris</i>	
5. <i>Lonicera interrupta</i>	<i>occidentalis</i>	
6. <i>Suaeda suffrutescens</i>	4. <i>Juncus effusus</i>	
7. <i>Avena fatua</i>	5. <i>Cercis occidentalis</i>	
8. <i>Phragmites vulgaris</i>	6. <i>Washingtonia filifera</i>	
9. <i>Epicampes rigens</i>	7. <i>Xerophyllum tenax</i>	
10. <i>Pinus lambertiana</i>	8. <i>Pinus monophylla</i>	
11. <i>Pinus ponderosa</i>	9. <i>Salix spp.</i>	
12. <i>Pinus sabiniana</i>	10. <i>Acer macrophyllum</i>	
13. <i>Chloragalum pomeridianum</i>	11. <i>Evernia vulpina</i>	
14. <i>Pseudotsuga taxifolia</i>	12. <i>Parosela emoryi</i>	
15. <i>Juniperus occidentalis</i>	13. <i>Yucca brevifolia</i>	
16. <i>Ceanothus integerrimus</i>	14. <i>Yucca mohavensis</i>	
17. <i>Rubus vitifolius</i>	15. <i>Agave deserti</i>	
18. <i>Populus trichocarpa</i>	16. <i>Juncus acutus</i>	
19. <i>Torreya californica</i>	17. <i>Sambucus mexicana</i>	
20. <i>Typha latifolia</i>		
21. <i>Vitis californica</i>		
22. <i>Psoralea macrostachya</i>		
23. <i>Philadelphus gordonianus</i>		
24. <i>Scirpus robustus</i>		
25. <i>Juncus balticus</i>		
26. <i>Artemisia ludoviciana</i>		
27. <i>Martynia proboscidea</i>		
28. <i>Ceanothus integerrimus</i>		
29. <i>Ceratopteris triangularis</i>		
30. <i>Adiantum pedatum</i>		
31. <i>Pteris aquilina</i>		
32. <i>Woodwardia spinulosa</i>		

Conclusion.—From such cases as these, summarized in the accompanying table, we are forced to conclude that most basket materials have a wider range than their use and that geographic distribution

is therefore not the controlling factor in their selection. However this point cannot be regarded as conclusive without such evidence as to availability and abundance of plants as can only result from extensive field work along botanical as well as anthropological lines.

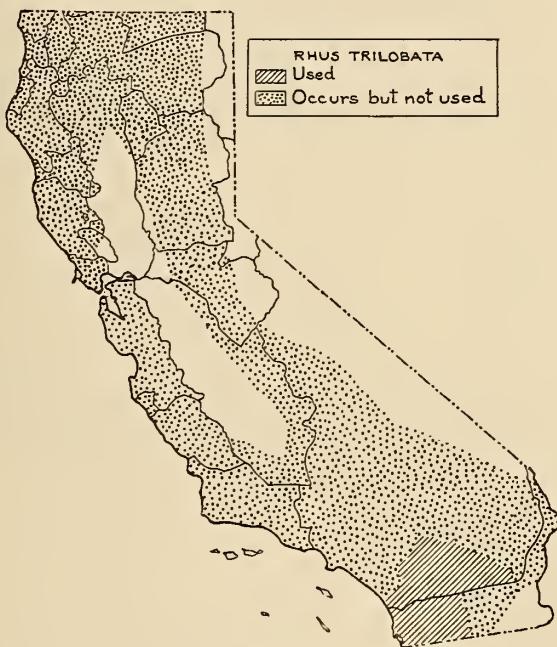
THE CHIEF BASKETRY PLANTS IN RELATION TO WEAVES

Theory.—If the availability of certain plants cannot be regarded as the reason for their use, the most obvious hypothesis is that technique of manufacture is the governing factor. If this is true we may expect to find the same or equivalent materials in use wherever a certain weave is found.

Distribution of weaves.—It has already been stated that two weaves, coiling and twining, are practiced in California. It is hardly correct, however, to use these terms as equivalents in determining basketry plants. Conditions will be much more fairly represented by the statement that openwork twining is universal in the state for coarse baskets—fish traps, cradles, burden baskets, and winnowers—while other articles—cooking, hat, plate, mortar baskets, etc.—are made either in coiled work or close twining. The latter is (1) the sole weave employed among a group of some thirteen tribes in the north of the state, and (2) extends alongside of coiling to the Diegueño, being more and more superseded in importance by the coiled technique among the southern tribes.

Requirements and materials of openwork twining.—The coarse twined baskets, apparently the simplest as to weave and material, are made for hard usage, requiring both strength and lightness, and, where both warp and woof are of the same material, a certain degree of flexibility. Four chief materials are employed in openwork baskets: hazel, on the northwest coast; tule, at Klamath and Clear Lakes (Pomo); a rush (*Juncus acutus*) among the southern coast tribes; and willow, to a greater or less extent among almost all tribes. *Juncus* and tule are the lightest and most flexible materials, but lack the strength and support found in twigs. This is recognized in the fact that the tribes employing these materials also make openwork baskets, notably winnowers and seed beaters, of willow, juniper (*Lutuami*), and *Rhus trilobata* (Cahuilla). Hazel is a most admirable material as to lightness, but on account of its large pith is not so strong as willow. The wide use of willow in this style of weave supports the theory that plant materials are selected for their adaptability to a certain technique, the use of other plants being influenced by the materials used in the prevailing close type of weave.

Requirements and materials in coiling and twining.—Close twining demands a rigid warp material and a very flexible woof. Among the Lutuami both are flexible, but even here an attempt at simulating stiffer materials is found in the double warp. The resulting baskets hold their shape, but may be bent by pressure. The coiled weave, on the contrary, in which the single foundation strand is exceptional, requires that both foundation and wrapping be capable of bending, although the basket so made is perfectly rigid. Therefore we might



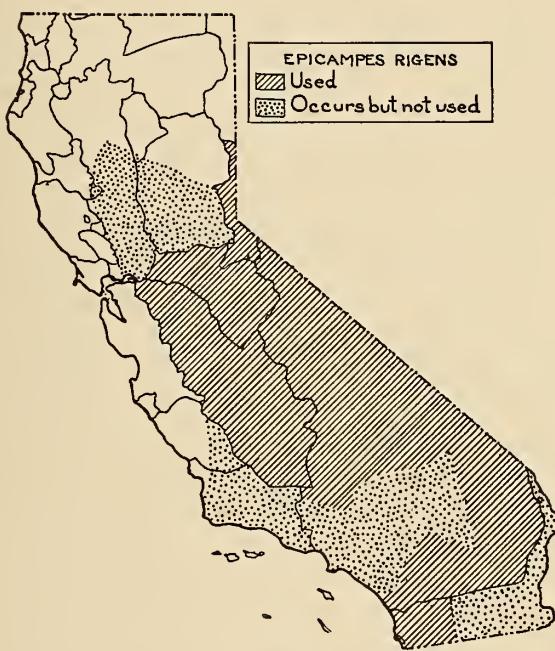
Map 5

expect to find the same plants used for wrapping and woof, but the foundation more flexible than warp materials. That such is not the case appears definitely from the appended table showing the distribution of the chief materials according to weave in each of nineteen tribes practicing both coiling and close twining. In only nine cases, or barely one-half the total, are different materials used for foundation and warp, and in three of these, marked with an asterisk, the foundation is less flexible than the corresponding warp. Moreover, the wrapping and woof materials in these areas show exactly the same ratio, yet from the requirements of the weave there is no reason why they should not be the same.

TABLE 2
CHIEF MATERIALS IN COILED AND CLOSE TWINED WEAVES

<i>Tribe</i>	<i>Foundation</i>	<i>Warp</i>	<i>Wrapping</i>	<i>Woof</i>
1. Wailaki	* <i>Salix</i> sp.	<i>Corylus rostrata californica</i>	<i>Cercis occidentalis</i>	<i>Pinus sabiniana</i>
2. Kato	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Cercis occidentalis</i>	<i>Salix</i> sp.
3. Yuki	* <i>Cornus</i> sp.	<i>Salix</i> sp.	<i>Cercis occidentalis</i>	<i>Salix</i> sp.
4. Wappo	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Carex barbarae</i>	<i>Salix</i> sp.
5. Pomo	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Carex barbarae</i>	<i>Pinus ponderosa</i>
6. Wintun	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Cercis occidentalis</i>	<i>Pinus</i> sp.
7. Yana	<i>Corylus rostrata californica</i>	<i>Corylus rostrata californica</i>	<i>Cercis occidentalis</i>	<i>Salix</i> sp.
8. Maidu	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Cercis occidentalis</i>	<i>Cercis occidentalis</i>
9. Washo	* <i>Cercis occidentalis</i>	<i>Salix</i> sp.	<i>Cercis occidentalis</i>	<i>Salix</i> sp.
10. Miwok	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Cercis occidentalis</i>	<i>Salix</i> sp.
11. Yokuts	<i>Epicampes rigens</i>	<i>Salix</i> sp.	<i>Carex barbarae</i>	<i>Salix</i> sp.
12. Mono	<i>Epicampes rigens</i>	<i>Cercis occidentalis</i>	<i>Cercis occidentalis</i>	<i>Cercis occidentalis</i>
13. Tibatulabal	<i>Epicampes rigens</i>	<i>Cercis occidentalis</i>	<i>Salix</i> sp.	<i>Salix</i> sp.
14. Kawaiisu	<i>Epicampes rigens</i>	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Salix</i> sp.
15. Panamint	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Salix</i> sp.
16. Chemehuevi	<i>Salix</i> sp.	<i>Salix</i> sp.	<i>Juncus acutus</i>	<i>Salix</i> sp.
17. Chumash	<i>Juncus acutus</i>	<i>Juncus acutus</i>	<i>Juncus acutus</i>	<i>Juncus acutus</i>
18. Cahuilla	<i>Epicampes rigens</i>	<i>Juncus acutus</i>	<i>Juncus acutus</i>	<i>Rhus trilobata</i>
19. Diegueño	<i>Epicampes rigens</i>	<i>Juncus acutus</i>	<i>Juncus acutus</i>	<i>Rhus trilobata</i>

Conclusion.—On the whole there appears to be a decided grouping of plant materials, not by function in the basket, but by areas, although not according to geographical distribution except in a general way. Thus while the grass *Epicampes rigens* is the chief foundation south of San Francisco (Map 6), and willow in northern coiled ware, both occur almost throughout the state; and the presence of three-rod foundations in ornamental Pomo baskets, and of one-stick



Map 6

baskets among the Panamint, who largely use bunches of *Epicampes* in coiling, precludes the decision that the practice of using a multiple foundation in the south, and single rods in the north, is entirely responsible for this division. It is hardly necessary to say that the lines that run longitudinally through the state separating linguistic stocks have nothing to do with the question, since they coincide with neither the divisions of plant materials nor of weaves. The evidence, then, shows even less influence of basic technique than of floral distribution on the choice of basketry plants.

SUGGESTIONS IN CONCLUSION

Other influences.—Although in this study the two theories discussed have been chiefly held in mind, several other influences, such as tradition, the customs of adjoining tribes, and civilized conditions, have been noticed as of possible significance in the selection of basketry materials.

Tradition.—Sparkman¹⁵ says of the Luiseño: "No model is ever used, except possibly of late years occasionally, and no two baskets are ever exactly alike." Notwithstanding this, it is safe to say that tradition plays an important, if not the most important, rôle in determining basket materials used at present by any tribe, as it undoubtedly does in the distribution of patterns and their arrangement. The ancient Chumash bowls and plates deposited in the Museum by the U. S. Department of Agriculture can hardly be distinguished from modern Luiseño and Cahuilla baskets in form or materials. In a more general way, the specialization of certain materials for a particular part of the basket is traditional. *Agave deserti* is customarily used by the Cahuilla to begin the foundation in coiling but never continues throughout the basket; strips of *Washingtonia filifera* appear, like *Juncus acutus*, as wrapping, but never, like the rush, form the foundation; the red dye of alder bark is applied to no plant fiber except stems of the fern, *Woodwardia*. The complete absence of willow as a warp material from older Hupa baskets is said to be due to superstition regarding the plant.¹⁶ It may be that this element is a factor in other materials and tribes. The influence of tradition cannot carry us back to the origin of use or disuse, but it is certainly of value in explaining present usage.

Adjacent tribes.—Basketry is further influenced to some extent by the sort of work done by surrounding tribes. This is most noticeable where several distinct peoples are thrown together on a single reservation. Baskets made by the Northern Paiute on Klamath Lake reservation do not differ in form or materials from those of the Klamath and Modoc Indians who are at home there. The Wappo have so adopted the Pomo type of basket that their handiwork cannot be distinguished from it. On the other hand, eight Coneow Maidu baskets from Round Valley reservation preserved perfectly the Maidu type, showing no indications, at least in choice of plant materials,

¹⁵ Sparkman, P. S., 1908, p. 204.

¹⁶ Goddard, P. E., 1903, note, p. 39.

of influence from the Pomo or Yuki, among whom the Concow have been transplanted for sixty years. Even in their own territory tribes show signs of external influence. No better example can be mentioned than the practical uniformity in basket materials which makes possible the grouping together of basketry from a dozen small adjacent tribes under the single term "Northwestern type." The Achomawi (Pit river Indians) use the tule and *Phragmites* of their northern neighbors, the Lutuami; the hazel and *Xerophyllum* of the Northwest type; and redbud bark which is used by neither, but found among the Maidu to the south. It must be noted that the various materials are borrowed *en masse*, the tule baskets being embroidered strictly with tule root, and the hazel-conifer root baskets with maidenhair fern. Less striking is the transition from redbud bark to yucca root as a red pattern material. Yucca is used only among the most southern tribes of the Yokuts; and of thirty-seven Mono baskets in the twined weave, representing the more northern type, every red pattern was in redbud, while out of twenty coiled baskets (the southern weave) having red designs, fourteen were in yucca and only six in redbud. These facts indicate that while generic types of weaves and materials are unassociated, particular techniques may be definitely connected with particular materials.

Civilization.—The fact that since contact with the whites practically every tribe includes manufactured materials in some of its baskets is valuable in this connection only as it shows that among savage as well as civilized peoples new materials may be introduced and gradually find a place, even to supplanting the old. So the fringe of red worsted characteristic of Miwok and Yokuts "jars" must have taken the place of feathers, and among the Wappo, colored glass beads have supplanted the laboriously ground ornaments of clam and abalone shell. Barrows¹⁷ tells us that the Cahuilla woman now uses a sharp nail as an awl where she formerly used a cactus thorn set in a manzanita handle. Cotton string is frequently met with in Lutuami basketry in place of, or occasionally along with, the cord of native nettle bark (*Urtica breweri*). It is even said that a roll of Japanese straw matting, carefully unraveled, has been used in basketry by this tribe, although no baskets made of it were found, showing that, after all, innovation is extremely slow and cautious, and that if any of the present basket materials came into use through introduction from without, they must have proved their merit through prolonged trial.

¹⁷ Barrows, D. P., 1900, p. 42.

Conclusion.—Finally, although the usage of these seventy-odd plant species is not due entirely to their distribution, nor to their suitability from the standpoint of technique in weaving, nor primarily to any one of the influences suggested by this study, we may conclude that basketry, with its selection of plant materials in California, is at present a rigid art, which has been developed by each tribe or group of tribes within its own environment through a combination of influences; an art which may be lost in time by removal from these influences; and which, like all living things, has progressed, and is progressing, by gradual adoption of whatever new materials offer advantages over the old.

APPENDIX

LIST OF BASKET MATERIALS

According to Part, Use, and Tribe

Amaryllidaceae

Agave deserti. Desert agave. Leaf: foundation,¹⁸ Cahuilla, Diegueño.

Anacardiaceae

Rhus diversiloba. Poison oak. Stem: warp, Panamint, Wintun; woof, Panamint; foundation, Pomo. Juice: black dye, Pomo.*Rhus trilobata*. Squaw bush. Stem: warp, woof, and wrapping, Cahuilla, Diegueño, Luiseño, Panamint; foundation and wrapping, Chumash.

Berberidaceae

Berberis aquifolium. Barberry. Root: yellow dye, Hupa.*Berberis nervosa*. Oregon grape. Bark: yellow dye, Hupa.

Betulaceae

Alnus rhombifolia. White alder. Bark: red dye, Hupa, Whilkut, Nongatl, Sinkyone, Yurok, Karok, Shasta, Achomawi, Wintun, Yuki, Pomo.*Alnus rubra*. Red alder. Root: woof, Hupa,¹⁹ Whilkut, Nongatl, Lassik, Wailaki, Yurok, Wiyot, Pomo; brown pattern, Whilkut.*Corylus rostrata californica*. Hazel. Stem: warp and woof, Tolowa, Hupa, Whilkut, Chilula, Lassik, Sinkyone, Wailaki, Wiyot, Achomawi, Atsugewi, Yana, Pomo, Yuki; warp, Chimariko, Karok, Miwok, Yokuts; rim hoop, Lassik, Wailaki; foundation, Yana, Miwok. Stem (dyed): black pattern, Tolowa, Hupa, Wailaki, Yurok, Wiyot.

Calycanthaceae

Calycanthus occidentalis. Calycanthus. Stem and bark: Pomo.

Caprifoliaceae

Lonicera interrupta. Honeysuckle. Stem: foundation, Yuki.*Sambucus mexicana*. Elderberry. Stem: black dye, Cahuilla.*Sambucus* sp. Elderberry. Stem: black dye, Cahuilla, Diegueño, Luiseño, Agua Caliente.

Chenopodiaceae

(Dondia suffrutescens. Sea-blight. Stem: black dye, Cahuilla.)²⁰*(Suaeda diffusa*. Sea-blight. Whole: black dye, Cahuilla,²¹ Southern California.)²²*(Suaeda suffrutescens*. Sea-blight. Whole: black dye, Cahuilla.)²³*Suaeda suffrutescens*. Sea-blight. Whole, black dye, Cahuilla, Chumash, Luiseño, Diegueño.¹⁸ At beginning only.¹⁹ *A. oregana*, Goddard, P. E., 1903, p. 39.²⁰ Coville, F. W., 1905, p. 27 = *Suaeda suffrutescens*.²¹ Palmer, Edward, 1878, p. 653 = *Suaeda suffrutescens*.²² James, G. W., 1904, p. 14 = *Suaeda suffrutescens*.²³ Barrows, D. P., 1900, p. 43 = *Suaeda suffrutescens*.

Compositae

Artemisia ludoviciana. Wormwood. Stems: warp and woof,²⁴ Cahuilla.

Cyperaceae

Carex barbae. Slough grass. Root: wrapping, Yuki, Wappo, Pomo, Miwok, Yokuts, Mono, Panamint, Kitanemuk; woof, Pomo, Yokuts, Mono; foundation,²⁵ Pomo. Root bark, black pattern, Yuki, Wappo, Pomo, Mono.

Carex Mendozinoensis. Sedge. Root: wrapping, Pomo.

Carex sp. Sedge. Root: wrapping, Washo, Pomo, Wailaki, Yokuts, Tübatulabal; woof, Pomo. Rootstock: woof, Mendocino County.

Cladium Mariscus.²⁶ Cladium. Root: wrapping, Yokuts.

Scirpus lacustris occidentalis. Tule, Leaf: warp, Lutuami (Klamath and Modoc), Achomawi; warp and woof, Pomo, Yokuts, Paviotso, Ventura; woof, Achomawi; woof and rim binding, Lutuami (Klamath and Modoc); leaf (dyed), black pattern, and leaf (aged) yellow pattern, Lutuami (Klamath and Modoc). Root: black pattern, Lutuami (Klamath and Modoc); leaf (dyed) and root, black pattern, Achomawi.

(*Scirpus maritimus*). Bulrush. Root-stock (dyed): black pattern, Pomo²⁷, Panamint.²⁸ Root bark, black pattern, Pomo).²⁹

Scirpus robustus. Bulrush. Stem: warp and woof, Pomo; foundation, Yokuts.

Scirpus sp. Tule. Root (dyed): black pattern, Pomo.³⁰ Stem: warp and woof, Lutuami.³¹ Wrapping, Cahuilla.³²

Scirpus sp.³³ Marsh Bulrush. Root: black pattern, Panamint.

Ericaceae

Arctostaphylos sp. Manzanita. Green wood (charcoal): black dye.

Fagaceae

Quercus lobata. White oak. Bark (+FeO₂): black dye, Concow Maidu.

Gramineae

(*Cinna macroura*). Grass. Stalk: foundation, Cahuilla,³⁴ Southern California.)³⁵

Epicampes rigens californica. Grass. Stalk: foundation, Miwok, Yokuts, Washo, Mono, Kitanemuk, Panamint, Chemehuevi, Kawaiisu, Tübatulabal, Kern County, Luiseno, Cahuilla, Cupeño, Diegueño, Chumash.

Phragmites vulgaris. Reed. Stem: warp and woof, Lutuami; white pattern, Lutuami and Achomawi.

Sporobolus sp. Grass. Stalks: foundation, California,³⁶ Yokuts.³⁷

(*Vilfa* sp. Grass. Stalks: foundation, California,³⁸ Ventura (?).³⁹ Root: pattern, San Francisco.)

²⁴ Of storage baskets. They are constructed much like a nest and are not really textiles.

²⁵ At beginning only.

²⁶ Merriam, C. H., 1903, p. 825. Probably = *Carex* sp.

²⁷ Barrett, S. A., 1908, p. 137 = *S. robustus*.

²⁸ Coville, F. W., 1902, p. 38 = *S. robustus*.

²⁹ Purdy, Carl, 1902, p. 15 = *S. robustus*.

³⁰ James, G. W., 1904, p. 82, and Kroeber, A. L., 1909. Probably = *S. robustus*.

³¹ Kroeber, A. L., 1905, p. 148, and Barrett, S. A., 1910, p. 254 = *S. lacustris occidentalis*.

³² James, G. W., 1904, p. 84.

³³ Merriam, C. H., 1903, p. 826. Probably = *S. robustus*.

³⁴ Barrows, D. P., 1900, p. 42 = *Epicampes rigens californica*.

³⁵ James, G. W., 1904, p. 84 = *Epicampes rigens californica*.

³⁶ James, G. W., 1904, p. 75. Probably = *Epicampes rigens californica*.

³⁷ *Ibid.*, p. 84, and Powers, Stephen, 1877, p. 429. Probably = *Epicampes rigens californica*.

³⁸ James, G. W., 1904, p. 75 = *Epicampes rigens californica*.

³⁹ Priestley, H. I., mss., p. 42.

Iridaceae

Iris sp. Iris. Leaf: foundation,⁴⁰ Miwok.

Juncaceae

Juncus acutus. Rush. Leaf: wrapping, warp, and woof, Chumash, Diegueño, Luiseño, Cahuilla; leaf (dyed): pattern, yellow and black, Chumash, Diegueño, Luiseño, Cahuilla; foundation, Luiseño, Cahuilla.

Juncus balticus. Rush. Leaf: foundation, Washo (children).⁴¹

Juncus effusus. Rush. Leaf: warp, woof (practice baskets), Round Valley.⁴¹

Juncus lesenerii.⁴² Reed grass. Leaf: woof, Cahuilla.

Juncus mertensianus. Rush. Leaf: foundation, wrapping, warp, woof, Luiseño.⁴³

(*Juncus robustus*. Tule grass. Leaf (dyed): brown or black pattern, Southern California.)⁴⁴

Juncus textilis. Basket rush. Stem: wrapping, Cahuilla.

Juncus sp. Rush. Leaf: wrapping, Diegueño,⁴⁵ Cahuilla.⁴⁶ Leaf (dyed): brown pattern, Luiseño;⁴⁶ black and orange pattern, Cahuilla.⁴⁷

Leguminosae

(*Dalea Emoryi*. Stem: yellow dye, Cahuilla,⁴⁸ Southern California.)⁴⁹

Cercis occidentalis. Redbud. Bark: rim binding, Wailaki, Yuki, Yana, Maidu, red pattern, Lassik, Kato, Yuki, Wappo, Achomawi, Atsugewi, Yana, Pomo, Washo, Wintun, Maidu, Coneow Maidu, Miwok, Yokuts, Mono, Kawaiisu, Kern County. Bark (dyed): black pattern, Yuki, Wappo, Pomo, Maidu. Sapwood: wrapping, Kato, Yuki, Pomo, Yana, Washo, Wintun, Maidu, Miwok, Yokuts, Mono, Chemehuevi, Kern County, Tübatulabal, Coneow Maidu; woof, Washo, Maidu, Coneow Maidu, Miwok, Yokuts, Mono, Kern County; foundation (overlay), Yuki. Stem: foundation, Pomo, Washo, Wintun, Maidu, Coneow Maidu, Yokuts, Mono; warp, Washo, Miwok, Yokuts, Mono, Kern County; rim hoop, Kawaiisu.

Parosela emoryi. Parosela. Yellow dye, Chumash, Diegueño, Luiseño, Cahuilla, Cupeño.

Prosopis juliflora. Mesquite. Bark: woof (rope), Mohave.

Psoralea macrostachya. Leather root. Root: yellow dye, Luiseño.

Liliaceae

Chlorogalum pomeridianum. Soap root. Juice: seed proofing, Miwok.

Xerophyllum tenax. Squaw grass. Leaf: white pattern, Tolowa, Hupa, Whilkut, Nongatl, Lassik, Wailaki, Sinkyone, Yurok, Wiyot, Chimariko, Shasta, Yuki, Yana, Karok, Wintun, Yokuts, Achomawi, Atsugewi. Leaf (dyed): yellow pattern, Hupa, Yurok, Karok, Yokuts.

(*Yucca arborescens*. Tree Yucca. Root: red pattern, Panamint,⁵⁰⁻⁵¹ Kern County.)⁵⁰

⁴⁰ At beginning only.

⁴¹ Coville, F. W., 1905, p. 30.

⁴² Barrows, D. P., 1900, p. 45. Probably = *Juncus acutus*.

⁴³ Sparkman, P. S., 1908, p. 204. Probably = *Juncus acutus*.

⁴⁴ James, G. W., 1904, p. 84 = *Juncus acutus*.

⁴⁵ Kroeber, A. L., 1909.

⁴⁶ Sparkman, P. S., 1908, p. 234.

⁴⁷ Merriam, C. H., 1903, p. 826.

⁴⁸ Palmer, Edward, 1878, p. 651 = *Parosela emoryi*.

⁴⁹ James, G. W., 1904, p. 84 = *Parosela emoryi*.

⁵⁰ Coville, F. W., 1905, p. 42 = *Y. brevifolia*.

⁵¹ Merriam, C. H., 1903, p. 826 = *Y. brevifolia*.

Yucca brevifolia. Tree Yucca. Root bark; red pattern, Mono, Kitanemuk, Panamint, Tübatulabal, Kern County; brown pattern, Kawaiisu.

Yucca Mohavensis. Spanish Bayonet. Leaf: foundation?, Southern California.⁵²

Nymphaeaceae

Nymphaea polysepala. Water lily. Seed shell (+FeO₂): black dye, Lutuami.

Palmaceae

(*Neowashingtonia filamentosa*. Desert Palm. Leaf: wrapping, Cahuilla.)⁵³

Washingtonia filifera. Desert Palm. Leaf: wrapping, Luiseño, Cahuilla.

Parmeliaceae

Evernia vulpina. Wolf Moss. Whole: yellow dye, Hupa, Yurok, Lutuami, Karok, Wintun, Northern Paiute.

Pedalineae

(*Martynia louisiana*. Devil's Horns. Seed pod: black pattern, Southeastern California.)⁵⁴

Martynia proboscidea. Unicorn plant. Seed pod: black pattern, Mono, Kitanemuk, Panamint, Chemehuevi, Kawaiisu, Tübatulabal, Kern County.

Martynia sp. Devil's Horn. Seed pod: black pattern, Panamint.⁵⁵

Pinaceae

Juniperus occidentalis. Juniper. Root: warp and woof, Lutuami. Part not specified: Pomo,⁵⁶ Bark: cradle mattress, Mohave.

Picea sitchensis. Lowland Spruce. Root: woof, Tolowa, Whilkut, Nongatl, Lassik, Wailaki, Hupa; rim binding, Tolowa.

Pinus lambertiana. Sugar Pine. Root: woof, Hupa, Lassik, Yurok, Wiyot, Karok, Chimariko.

Pinus monophylla. One-leaf Pine. Pitch: waterproofing, Kawaiisu, Panamint.

Pinus ponderosa. Yellow Pine. Root: woof, Hupa, Achomawi, Atsugewi, Wintun, Maidu, Miwok; foundation and wrapping, Miwok.

Pinus sabiniana. Digger Pine. Root: woof, Wailaki, Yuki, Mendocino County, Wappo, Pomo, Hupa; warp, Pomo; wrapping, Yuki, Pomo.

Pinus spp.⁵⁷ Pines. Root: woof, Northern California, Yurok, Wiyot, Yana, Pomo, Yokuts.

Pseudotsuga mucronata. Red Fir. Root: woof, Pomo.

Pseudotsuga taxifolia. Douglas Spruce. Root: woof, Whilkut, Nongatl, Pomo, Mendocino County.

Polypodiaceae

Adiantum pedatum. Maidenhair, Five-Finger. Stem: black pattern, Tolowa, Hupa, Whilkut, Nongatl, Lassik, Wailaki, Yurok, Achomawi, Karok, Pomo (Coast),⁵⁸ Wintun, Mendocino County.

Adiantum sp.⁵⁹ Maidenhair. Stem: black pattern, Northern California, Yurok, Sinkyone, Achomawi, Shasta, Pomo.

⁵² Parsons, M. E., 1907.

⁵³ Coville, F. W., 1905, p. 52 = *Washingtonia filifera*.

⁵⁴ Coville, F. W., 1905, p. 31 = *M. proboscidea*.

⁵⁵ Merriam, C. H., 1903, p. 826 = *M. proboscidea*.

⁵⁶ Barrett, S. A., 1910, p. 257.

⁵⁷ Undetermined conifer roots are found as woof in these tribes: Tolowa, Hupa, Whilkut, Nongatl, Lassik, Wailaki, Yurok, Karok.

⁵⁸ Chesnut, V. K., 1902, p. 303, gives this species as a black pattern material among the Pomo in the vicinity of the coast. Purdy, Carl, 1902, p. 15, says maidenhair is never used by the Pomo.

⁵⁹ = *A. pedatum*.

Ceropteris triangularis. Goldenback Fern. Stem: black pattern, Hupa.

(*Gymnogramma triangularis*.⁶⁰ Goldenback Fern. Stem: black pattern, Pomo.)

Pteris aquilina. Brake Fern. Root: brown pattern, Pomo, Washo, Miwok, Mono, Kawaiisu, Tübatulabal. Root (boiled): black pattern, Pomo, Washo, Miwok, Yokuts, Mono, Kitanemuk, Kawaiisu, Tübatulabal, Kern County.

(*Pteridium aquilinum*,⁶¹ Brake Fern. Root: black pattern, Pomo, Mendocino County, Yokuts).⁶²

(*Woodwardia radicans*.⁶³ Giant Fern. Stem (dyed): red pattern, Hupa.)

Woodwardia spinulosa. Giant Chain Fern. Stem: white pattern, Hupa. Stem (dyed): red pattern, Tolowa, Hupa, Whilkut, Nongatl, Yurok, Achomawi, Wintun.

(*Woodwardia* sp.⁶⁴ Woodwardia. Stem (dyed): red pattern, Northern California, Yurok, Sinkyone; yellow pattern, Yurok.)

Rhamnaceae

Ceanothus integerrimus. Deer Brush. Stem: Concow Maidu.⁶⁴ Stem: foundation, Mendocino County; warp, Miwok.

Rosaceae

Rubus vitifolius. Blackberry. Juice (berry): black dye, Luiseño.

Salicaceae

Populus trichocarpa. Black Cottonwood. Root: woof, Hupa.

Salix argophylla. Willow. Stem: warp, Pomo.

(*Salix fluviatalis argyrophylla*.⁶⁵ Willow. Stem: warp, Hupa.)

Salix hindsiana. Willow. Stem: warp, Pomo. Sapwood⁶⁶ and bark,⁶⁶ Pomo.

Salix lasiandra. Yellow Willow. Stem: warp, Panamint.

Salix nigra. Black Willow. Stem: woof, Panamint. Inner bark:⁶⁶ Pomo.

Salix sitchensis. Velvet Willow. Stem: warp and woof, Pomo.

Salix spp.⁶⁷ Willows. Stem: warp, Hupa, Whilkut, Nongatl, Wailaki, Kato, Yurok, Wiyot, Yuki, Wappo, Pomo, Lutuami, Achomawi, Yana, Wintun, Washo, Maidu, Concow Maidu, Miwok, Yokuts, Mono, Northern Paiute, Panamint, Chemehuevi, Kawaiisu, Kern County, Ventura Chumash, Cahuilla, Mohave; woof, Wailaki, Kato, Yuki, Wappo, Pomo, Lutuami, Achomawi, Yana, Washo, Maidu, Miwok, Yokuts, Mono, Northern Paiute, Chemehuevi, Kawaiisu, Kern County, Ventura Chumash, Cahuilla, Mohave; rim hoop, Whilkut, Nongatl, Lassik, Wailaki, Wiyot, Yana, Pomo, Northern Paiute; foundation, Kato, Wappo, Pomo, Washo, Wintun, Maidu, Concow Maidu, Miwok, Yokuts, Mono, Panamint, Kawaiisu, Chemehuevi, Mohave. Root: woof, Hupa,⁶⁸ Yurok, Wappo; wrapping, Pomo. Bark: woof, Miwok, Yokuts, Mohave; rim binding, Wailaki, Lutuami; red pattern, Pomo, Miwok, Panamint; brown pattern, Washo, Miwok, Yokuts, Kitanemuk, Kern County. Bark (dyed): black pattern, Washo. Sapwood: rim binding, Yuki, Northern Paiute; wrapping, Washo, Maidu, Kitanemuk, Panamint, Chemehuevi, Kawaiisu; woof, Wintun, Panamint, Mohave. Sapwood (dyed): black pattern, Chemehuevi. Stem: Gualala Pomo.⁶⁹ Part not specified; Chimariko.⁷⁰

⁶⁰ == *Ceropteris triangularis*.

⁶¹ == *Pteris aquilina*.

⁶² Merriam, C. H., 1903, p. 826: Tulare == Yokuts.

⁶³ == *W. spinulosa*.

⁶⁴ Coville, F. W., 1902, p. 23.

⁶⁵ == *S. argophylla*.

⁶⁶ Coville, F. W., 1902, p. 347.

⁶⁷ On account of the similarity between species and the apparent lack of discrimination by the Indians themselves, the genus has been made the basis of separation in this study, with the above exceptions.

⁶⁸ At start only.

⁶⁹ Powers, Stephen, 1877, p. 187.

⁷⁰ Coville, F. W., 1902, p. 36.

Saxifragaceae

Philadelphus gordonianus. Syringa. Stem: warp,⁷¹ Mendocino County, Yuki, Wailaki.

Sapindaceae

Acer macrophyllum. Big leaf maple. Sapwood: Mendocino County,⁷² Concow Maidu.⁷³ Stem: warp, Maidu. Sapwood, woof and wrapping, Miwok. Bark, rim binding, Miwok.

Smilaceae

Smilax californica. Greenbriar. Stems: Mendocino County. Stem: black pattern, Yuki.

Taxaceae

Torreya californica. California Nutmeg.

(*Tumion californicum*).⁷⁴ California Nutmeg. Root: woof, Pomo.)

Taxodiaceae

Sequoia sempervirens. Coast Redwood. Root: woof, Hupa, Yurok, Sinkyone, Karok.

Typhaceae

Typha latifolia. Cat-tail. Leaf: warp, woof, and white pattern, Lutuami.

Urticaceae

Urtica breweri. Nettle. Bark: woof,⁷⁵ Lutuami, Northern Paiute; rim binding, Lutuami.

Vitaceae

Vitis californica. Wild Grape. Stem: rim binding, Whilkut, Nongatl, Lassik Wailaki, Yurok, Wiyot, Yuki, Pomo, Maidu; woof, Yokuts. Root: woof, Hupa, Yuki; warp, Yurok.

Plants Accessory to Basketry

Cactaceae

Echinocactus polycephalus. Devil's pincushion. Spine: awl, Panamint. *Opuntia* sp. Opuntia. Spine: awl, Cahuilla.

Ericaceae

Arctostaphylos sp. Manzanita. Wood: awl handle, Cahuilla.

⁷¹ In baby carriers.

⁷² Corville, F. W., 1905.

⁷³ Chesnut, V. K., 1902, p. 365.

⁷⁴ = *Torreya californica*.

⁷⁵ At start only.

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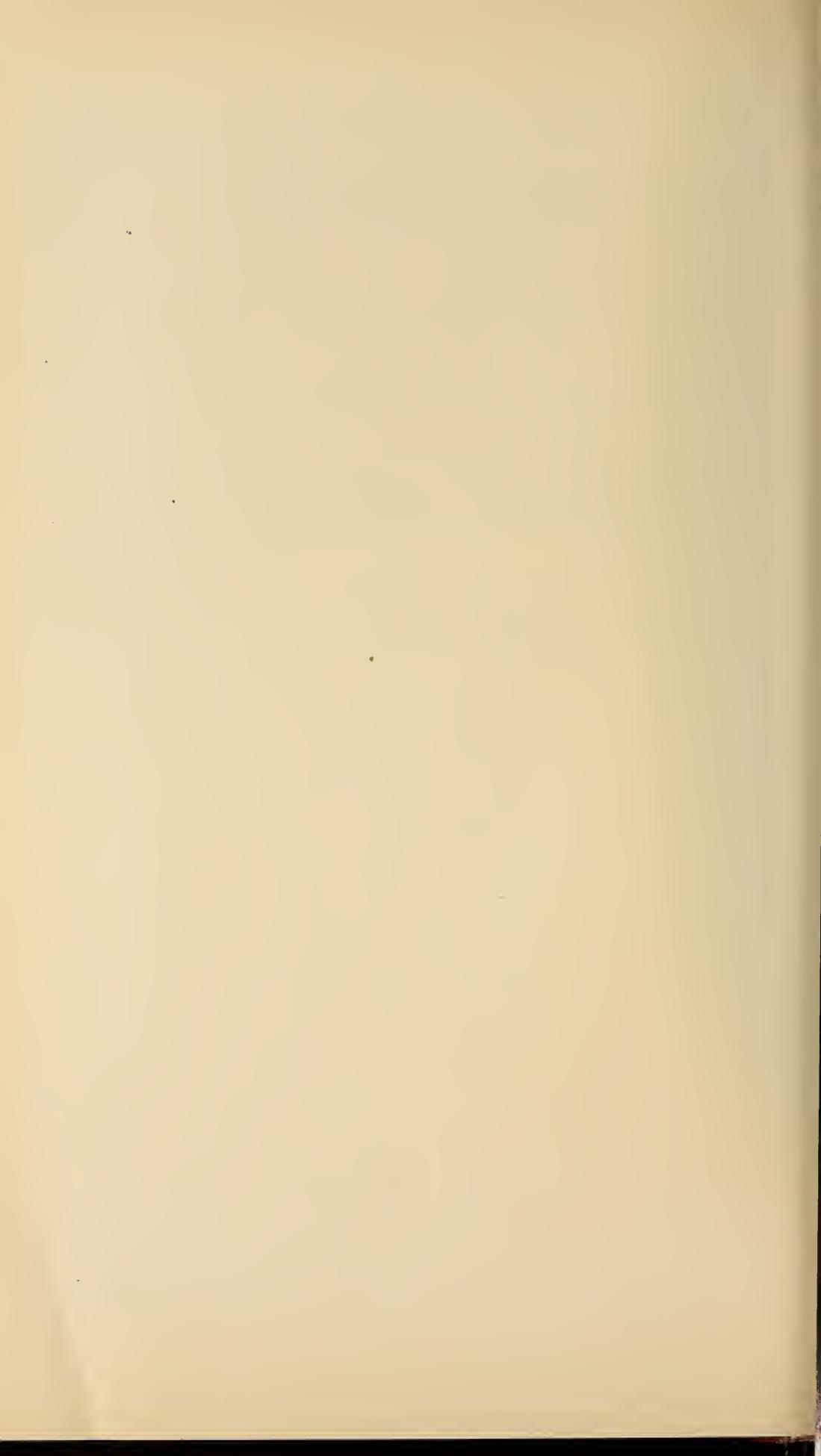
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NORTHERN PAIUTE VERBS

BY

GILBERT NATCHES



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EDITOR'S NOTE

In 1914, Mr. Natches, a full-blooded Northern Paiute of Pyramid Lake, Nevada, a landscape painter of some talent, visited the University for several months. He had been invited in the hope that he might assist in the editing of Dr. W. L. Marsden's Northern Paiute texts. This plan proved illusory, partly because of slight differences of idiom between the Paiute of Oregon and Nevada, partly because of psychological causes which render the exact following and interpreting of another narrator's text difficult. Mr. Natches however readily learned to write his language, and left at the University a vocabulary, series of phrases, and such connected texts as he was able to remember. From these materials have been selected the list of verbs and the brief texts that follow. The orthography is the same as Dr. Marsden's in the preceding paper, with the addition of small capital letters to designate unvoiced vowels. The letter e represents the Shoshonean vowel often written û or ü, more properly ii. Asterisked forms are those that appear only once in Mr. Natches' writing.

VERBS

- *akwi'sa'-i, sneeze
- *api', talk
- *ata'-a, sit (plur.)
- atsa-, red
- *atso', sew

- *ea', sore
- *egwi', depend on
- ene', very, hard, tight, try
- eni', say, talk, make sound
 - enawi, say, shout, sound, make noise
- *eso'do-do'-i, snore
- *ede'-te, hot
- edze-tse cold
- ewi', sleep
 - tabi'-ewi, nap, sleep in the day

- hani', take
 nama'-hani, prepare to go
- *haña-, howl (anim)
 habi', lie, fall, fall on (sing.)
 pa-ha'bi, swim
- *hē, little, not much
 hekwa', blow (wind)
- hi (cf. -ho)
 tsi-hi', punch, stab
 ma-tsi'-hi, elbow
- hima', take
 hime', beg, obtain
 hibi, drink
 hibi'-nemi, drinking
- hida, carry on arm or under arm
- *-hiyo'
 tsa-hi'yo-, slack
- ho (cf. -hi)
 tso-ho', beat with pestle
 we-tso'-ho, chop
- hoa'wa
 te-ho'awa-'i, hunt, approach secretly
- homa'i, miss, fail to hit
- *-hoya'
 te-ho'ya, visit by stealth with object of marriage
- hu'-u', flow, float
 hubi'a, sing
- iga', enter, penetrate
 igi', scoop
 igwi', smell (tr.)
- ime'-kwa, wrong, lost, crazy, stray
 isa', tell lie
- iwa', much, many
 kā'- (no), full (-no, with)
- *-ka
 tsi-ka'-a, cut off
 pa-dza'-ka, wash
- kama', taste
 kate', sit (sing.)
 na-ma'-gate, join
 te-bi'ña-gate-nemi, sit and question
 yui'-kate, warm oneself
 wadzi'-kate, hide
 te-dza'-kate, catch, usually a horse
- kawo
 kawo'-no, carrying basket
 kawo'-wo'-o, bell
- ke
 ma-ge, hold down with hand
 te-ga'te-ke, pile up
 wadzi'-ke, lose
 we-tsa-ke, tie, knot, fasten

- ke-i', bite, sting
 ke-'wa'ya, chew
 *kekwe', carry crosswise in mouth
 *kepi'nawi, have, hold
 kia', give
 na-ba'-gia, have bath
 kima', come
 *ko
 ma-we'-ko, coil (tr.)
 tsa-ko', break by bending
 ko-ta'bi, break
 ta-ko', break
 ko, kill
 na-ko'-i, fight
 te-ko'-i, kill beef
 kono'-o, stand (plur.)
 *kozo'kwa'i, whistle
 kote', turn back, return
 ma-go'te, bring back
 kote'-pite, arrive on return
 kuna'-'a, sweat
 ma-gu'na'a, sweat on hand
 ta-ku'na'a, sweat on foot
 kutsa', get wood, cut wood for fire
- *-kwa'ida
 ta-kwa'ida, take off shoes
 *-kwaha'
 tsi-kwa'ha, point at
 kwaña', smell, stink
 -kwase', throw
 ta-kwa'se-pe, wilted leaves, failing man
 te-da'-kwase, throw stones
 we-kw'ase, sling
 kwati', shoot
 we-kwati, pour, spill
 kwē', take, catch, carry
 kwe'i', descend, fall, be born (we'i', below)
 ta-kwe''i, walk
 kwena'
 na-da'-kwena-i, jump
 tsi-kwe'na-i, move, throw, or push with stick or finger
 te-da'-kwena-no, flat-iron
- *-kwini'
 tsi-kwi'ni, hang
 kwinu'-nu'-i, spin, turn
 te-dza'-kwinu-i-nu, crank
 kwiba', whip, fall
 kwiba'-bite, stumble, fall in walking
 te-gwi'ba-no, drum, instrument of percussion
- *kwipi'ka, shiver
 *kwisi'u, catch in trap (intr.)

***-kwidu'**

tsi-kwi'du-i, stir with stick

kwidza'-dza-i, yell*-kwona'**

we-kwo'na, cut open

tsa-kwo'na, open a door

ko-kwo'na-u, burn through

-ma, touch (with:)

we-ma', body

ma-ma', hand

ta-ma', foot

tso-ma', head

tsi-ma', finger, stick

to-ma', long pole

ma'i-, beat, overcome, conquer, win

maka', give to eat, feed

maga', mugu', sharpen, sharp

mani', do, make

tu'i'-mani, try to do

mani'-kote, go about

teka'-mani-mia, go to procure food

***masami**

te-ma'sami, irrigate

mas'e'-a, plant

mawa'i, reach**mawa'ya**

pa-ma'waya, swim (duck)

maye', perceive, find, see

-mena'u

tso-me'nau, turn the head

ta-me'nau, turn over with the foot

we-me'nau, turn over from the wind

meni', turn (intr.)

mi', short, shallow

mi, say, say thus, be thus, that

mia', go

nahi'-mia, go to kill (cf. ma'i)

mia'-topo, knee

mia'-tsido-gate, kneel

seda'-mia, homesick, look sick

tū'-mia, walk stooped

***mimo'-no'-i, all run out**

moa', long ago, old

mō'kweti, go to get (dual)**mozi'-a**

pa-mo'zia, spurt water

modzi'

we-mo'dzi-gwati, kick

***na'-a', grow**

na'i

we-na'i, throw, throw into

- na'iy', burn (also na'i-)
 na'i-ta, bad, vicious
 naka', ear, hear, listen
 naka'-tsai-ki, approach by following a sound
 nima'-naka, try to mock
 naki', chase, pursue
 mugu'a-naki, go to being back a soul
 nakwa'i, follow
 we-na'ki, run after with a stick
 nama', run
 nama'-mia, hasten
 namo', (obliterate?)
 we-na'mo, we-na'mo-'a, win all at gambling; snowstorm
- *natso
 we-na'tso, comb
- nega', dance
- *ne-ne'kwi, heavy
- nē'ma, bodily condition, good or bad; pain, sick
- nemi', be in a place
 habī'-nemi, lie (sing.)
 wena'-nemi, stand (sing.)
 yadua'-gate-nemi, sit and talk
 eni'-nemi, talk continually, chatter
- *nena'
 pa-ne'na-de, lake
- *nete'ga
 we-ne'tega, hum or buzz in the wind
- ni-, talk
 ni-a', na-nia', name, call
 te-ni'-a, fear
 ni-ke', scold
 na-ni'-koi, laugh at
 ni-kwe'-e, te-ni'-kwe, sing
 ni-kwi'-gia, answer
 ni-ma'ye, guess
 ni-se''a, scare
 ni-ta'ma, tell
- niga'
 ma-ni'ga-'a, finger ring
 ta-ni'ga, put on shoes
- nima'-, try, resolve (ni-?)
- *noa', roll
- noho'
 ta-no'ho-mani, run
 te-no'ho, roast
 to-no'ho, push
 tsi-no'ho, push with the end of something
 we-no'ho, pry or pull with a pole
- *nobī'-a, load (nobī', house)
- nosi', dream
 nosi'-kwaha, tell a dream
- noyu'-a, crawl, move like a snake, train, or crowd
 we-no'yo'-i (we-no'yu'-i?), move a house or large object

- oa'-, yellow
 *ohi', cough
 *oho', strong
 ode', long, deep
- pa'a', crack
 we-pa''a, split, rip
- paga'
 paga'-pe, shooting implements
 we-pa'ga, wrap around
- pagi'
 we-pa'gi, whip, beat, pound with the side of a stick
- *pamo'-i, smoke tobacco (pamo', tobacco)
- paba'-, large
 pasa', boil; dry
- *pada'
 te-ba'da-no, arrow-straightener
- *pata'
 pata'-kwitsi, shine
- patsa', kill
- *padzi'-, whitish
- *pa'wa', swell
- payu'
 ta-pa'yu-i, break to pieces
 ta-pa'yu-i-kote, go about breaking
- penu'ⁿ
 penu'-nu(-i), whirl
 tsa-pe'nu'-i, twist, lock
- petu'
 ma-be'tu-i, roll up
 ma-be'tu-i-teñe, command to roll
 te-ma'-betu-i, make a cigarette
- petso'ma¹
 ma-be'tsoma, wring out, twist so as to squeeze
- pihi', rot
- *pigo'au, burst open
- pimo'-mo-i, hum or buzz in the wind
- pi'ná (pi'- ?), half full
- piza', pidza', good, pretty, nice
 piza'-kama, taste good
 piza'-pi, red paint
 pidza'-pi, to like
 ma-bidza-pi, make good, clean
- pida', make fire
 ma-bi'da, palm of the hand
- pita', stop, slow
- pite', arrive
 kote'-pite, return
 ma-go'te-pite, make return, bring back
 tsa-ka'te-pite, take hold of

¹ The three verbs *penu'*, *petu'*, *petso'ma* seem to contain a common stem *pe-*.

*pido'

na-bi'do, trade

pitsi', suck

piwo'ya, drag

tsa-pi'woya, drag

-po'ina

ma-bo'ina, middle finger

ta-po'ina, middle toe

pō'hi, blow with the mouth

*-pogo', (cf. paga')

na-dzi'-pogo-'o, pin

*podza'i, splash

pono'-no, roll along, shake

*-poño'

na-bo'ño, cut hair with flint edge

poya', climb, mount

*poyo'-a, run

puī-, green, blue

te-bu'i-ka, gather seeds

puni', see, look

te-bu'ni, awake

tsa-pu'ni, show, display, hold up

sa

sa-'a', cook

sa-'i', melt, thaw

pa-za'-kwape, mud

*sañi'

na-da'-sañi, kick each other

*sawi'

pa-za'wi, leak, drip

se

ni-se'-a, scare

se-ha'i-, afraid

seme', one

ma-ze'me-tu, gather

*semi

pa-ze'mi-, sprinkle

*sene'²

sene'-ne, shake, quake

sese'ni,² "asleep" from cessation of blood, numb in the body

ma-ze'seni, numb in the hand

ta-se'seni, numb in the foot

*seye'²

tsa'-seye, shake an object like a tree

seda', seta', bad

seta'-a, angry

ni-se'ta'-a, quarrel

seda'-mia, homesick, look sick

seta'-i, freeze to death

² sene', sese'ni, seye' appear to contain a common element se-.

- sigi'
 ta-si'gi-tu, flatten
 na-ma-zigi-tu, flatten with the hand
 siko'hi, slide
 sipa'
 we-si'pa, scrape
 na-zí'pa, shave oneself
 na-da'-sipa, cut hair
 igo'-sipa, lick with the tongue
 su-, mental action, emotion
 na-zu'-kwa'i, be ashamed
 su-kwi'da, become angry
 su-ma'yé, remember
 su-me'wa, forget
 su-na'mi, think, feel, wonder
 su-ña'-ha, breathe
 su-ña'-pe, breath, spirit
 su-pi'ta, know, understand, believe, esteem
 su-tu'ni, smile
 su-wa'-i, laugh
 *sua', eat up
 *suma'
 tsa-su'ma, bend
 *suní'
 se-su'ni, sweep
 *suyu', have recourse to
- ta'ina'-, thin
 taga'
 ma-da'ga, next to last finger
 te-dza'-taga-ke-no, stringed instrument
 tama', leave, drive
 tabe'-a, appear, look like, seem, resemble, become visible
 ha'u-tabe'-a, how it looks
 tē'-tsi-tabe'-a, seem small
 paba'-tabe'-a, appear large
 pa-da'be'-a, clear water
 ka'i tebu'-tabe'-i, blind
 tapi', throw something at, miss
 *tatsi
 ma-datsi'-i, slap
 *tatso'pa
 pa-da'tsopa, sink
 tawa'ga, make hole
 ku-da'waga, burn through with a live coal
 tsi-ta'waga, punch through
 taya', send
 te-³

³ Under this prefix, which appears to be the indefinite object, have been listed verbs whose stems have not been found separately.

- te-a'ze, freeze
 te-a'tia, gamble
 te-hi'wi, dig a hole
 te-bi'ña, ask
 te-bi'ña-gate-nemi, sit and question
 te-bo'-o, write, mark
 te-dzi'-po'-o, draw a line
 te-bo'ño, descend
 te-da'tseña, count
 te-wa'su, try, experience
 tē'-, small
 *te-te'a, poor, unskilful
 *te-de'ha, steal
 teka', eat
 teka'-mia, go to get food
 tege', put, place
 temā-, shut (cf. ma, touch)
 we-te'ma, close, shut
 tsa-te'ma, to button
 tsi-te'ma, close with finger, put into with a stick
 to-te'ma, na-do'-tema, plug, plugged
 teme', buy
 *tene'a
 pa-de'nea-kate, tears run
 *tē'pa, remove roasted food from ashes
 tebi'-tsi, sure
 tē'kwa, te-dē'kwa, to snow
 tē'kwi'-i, tell

 *to'c-, lazy
 *toda'
 tsa-to'da, lift
 toha'-, white
 *toga'-, dark, put out fire
 togi'-, fit, sure
 -togo'
 ma-do'go, thumb
 ta-to'go, great toe
 na-we'-togo'-i, make football race
 *tona', hit with the hand
 *totsa', dirty
 tu-, black
 tū, stoop
 na-dzi'-to'-o, walk with a stick
 tu'i', something, a kind, try
 *tusu', grind
 tuti', spit
 tutu'-, na-dza'-tutu'-i, stretch

tsa⁴

na-dza- (dual), nana-dza- (plur.), carry on back
tsa-'i',⁵ hold

naka'-tsi-ki, approach by following a sound ('hear-hold-come'?)

*tsama', twitch, try to pull

*tsada'-da-i, rattle

*-tsata'mi

ma-dza'tami, shake hands

*-tsea'

ma-dze'a, wipe, rub off

-tsibi'

to-tsi'bi, pick feathers

tsa-tsi'bi, pull out hair

-tsibo'

tsa-tsi'bo, tsa-tsibo-a, pull out, take out

to-tsi'bo, remove, take off (harness)

tsibu'i, emerge, go outdoors, rise, boil

tsigi'-i, slice

we-tsi'gi, slice

tsiya'-

tsiya'-ya'i, be hungry

tsiya-yaga, cry for food

*tsoba', pick up

unu'i, poor, pitiable

wami', stand (dual)

wati', look for

wadzi'-

wadzi'-kate, hide

wadzi'-ke, lose

wadzi-mo'-o, play ball, a ball

*-wea

we-we'a, sweep

we'i', drop, descend (cf. kwe'i' above)

ma-we'i-ke, drop (tr.), drop in hand

*-weko'

neba'-weko-da-'a, a beetle that crawls on the snow

wema', feel

na-kwe'ma, hurt

wena', wene', stand (sing.), set down, be in a condition of

kwipi'ka-wena, shivering

kwini'-nu-i-wena, spinning

tsada'-da-i-wena, rattling

pimo'-mo-i-wene, buzzing in the wind

eni'-wena, making a noise

⁴ This "stem" appears to be only the prefix tsa-, 'with sustained force'; the element which follows in the forms obtained is no'-o, a common suffix of nouns and verbs meaning 'in company with, by means of.' The "verb" is nothing but a combination of a "prefix" and a "suffix." In short, Northern Paiute draws no absolute line between its stems and its affixes. Compare na-, reciprocal, -no, with, na-no, together.

⁵ Probably the same "stem."

- wigi'a
na-wi'gia, meet
- *wiza', look at
- *wiso'ko-, greasy
- *woa'-, warm
- *-woi'
na-wo'i, wash oneself
- *wohi', bark (dog)
- wogo'-, thick
- woñi'
ma-wo'ñi, rub
tsa-wo'ñi, scratch
- *-woyu-
ma-wo'yu-i, set posts

- ya'-i', die
ya-mo'a, very sick, nearly dead
te-o'-ya'i, sick
- ma-ya'-moa, drop dead
- yaga', cry, call, neigh, wail
te-mo'-yaga-ke-no, wind instrument
te-ya'ga-ke-, call an animal by imitating its cry
- yabi', hurry
yabi'-gima'-a, hurry and come
- yadua', talk
- *yawa'-, hollow
- *yaya'-, light, not heavy
- yea'
ma-ye'a, mix
we-ma'-yea, stir
tsi-ma'-yea, stir with a stick
- yekwe', swallow, eat up
- *yegwi, sit (dual?)
yetse'ña, shake, be alive
- *yogo', cohabit
- yotsi', rise, ascend, stand up
- *yotso'-, soft
- yu'i', warm
yui'-kate, warm oneself

TEXTS

1. FROG AND MOON

1. Se'mega'dewa su pamo'go ku nā'tsi' naki'. 2. Otno ya'isi usu nā'tsi' tena'nā mata' nama'mi'a. 3. Yai'si usu' pamo'go odu'i'ta'dui-mina'. 4. Ya'isi su nā'tsi' ya'isi kaiota'mitepuni' kaiowiza' mi'adui. 5. Yabi'kima nā'tsi' ne'e'tekakwe mi'i yaisi su pamo'go. 6. Kaine'mi su nā'tsi' mihu su nā'tsi' ku yaga'na. 7. Ya'isiga su nā'tsi' tekono'opa pite'ga. 8. Ya'isi usu' okeno'o tenobi'kwai owete'ma. 9. Ya'isi su pamo'go ina' kwaina''a matu'nemi'a'si ku nātsi' ne oyekwe'kwu mi'i' ya'isi su pamo'go. 10. Ya'isi usu' nā'tsi' keno'o su mē'ha e ti yaisi kwaina''a nebno'o uhu'su nēme'neyekwe'de su mi'i' yaisi su mē'ha onita'ma. 11. Ina'kwaina''a mato'nemi'a'si ne kū seta'ku nā'tsi' ne oteka'kwu. 12. Neti ya'isi etete'kadua mi'i ya'isi su mē'ha onita'masi. 13. Ya'isi uye'itekwu ku pamo'go. 14. Ya'isi su mē'ha ku teke'ge'notsi taya''. 15. Ya'isi su nā'tsi' kote'kī tenobi'tamisu tepabi'ba'su. 16. Pite'hu.

2. COYOTE AND MOUSE

1. Semega'dewa su idza''a tenana'kwano tenobi'kwaisu yegwi'mo'o tede'kwana. 2. Yaisi kete'nana'kwaga e'sakwa inana'kwa obuni'ga hano'gasu neba'bi mani'kapē. 3. Yai'si su puña'dzi pewa'nato tsibu'i-kayakwi'. 4. Yaisi pite'huyaina kadu''u ka'i su kwi'dape pede'i''iwodu'a. 5. Seze'metsi'i inana'kwa tede'wasu inana'kwa seme'de-wasu. 6. Yaisi su puña'dzi mi'husu eni' pite'huyagwi'. 1. Hihi' nani'kwa'i ha'u no'i'mena'wi ka'i neba'tsapı mi yai'si eni'si tsibu'ika. 8. Yai'si neba'na musu'pui pite'ga.

3. THE CANNIBAL OWL

1. Seme'gadewa' su tea"ayu nina'izaya'ina pemmi'tenite'zunakena kai dza'e'na yaga'na mi ena''wina tena'bukwaka'sisapa neme' ku'bayu yaga'na mi ena''wi. 2. Ya'isi su upia' odu'i'nise''a ina' e kwaina'de su muhu' mi eni'kina e ma''no kai yaga'pāna ewi'huga mi su upia' odu'i'nita'matsagati. 3. Yaisi su tea"ayu kai dza''e'na mi ena'wi'na. 4. Yai'si su paidzo'o mi nania'de o naka'tsaikina su paidzo'oga i'na ha'nakwana neme' nane'mewa'gina mi'gA eni'kina. 5. Yai'siga su opia' onaka'pana ka'i ode'kwi'i. 6. Ya'isiga su paidzo'o ku nobi'-kwaitu tsibu'igina. 7. Ya'isi su tea"ayu omaye'hu. 8. Eda' ibia'

TRANSLATION

1. FROG AND MOON

1. Once Frog a boy pursued. 2. Then it was, the boy to his paternal grandfather was going. 3. Then Frog tried to call him. 4. Then the boy, then, not turned, not looking went on. 5. "Hurry here, boy, I want to eat you," said then Frog. 6. "No indeed," the boy said, the boy crying. 7. Then the boy his grandfather reached. 8. Then he, his grandfather, his house shut. 9. Then Frog, "Stand aside! I will go through, the boy I want to eat," said then Frog. 10. Then the boy's grandfather, Moon, "You stand aside, I am the one who people eats," said then Moon, told her. 11. "Stand aside, go through I, bad boy I shall eat him." 12. "I then shall eat you," said then Moon, told her. 13. Then he swallowed Frog. 14. Then Moon his grandson sent. 15. Then the boy returned toward his house his older brother's. 16. He arrived.

2. COYOTE AND MOUSE

1. Once Coyote his sister's son at the house sat, it was snowing. 2. Then, "Sister's son, you should, my sister's son, see how much snow deep." 3. Then Mouse outdoors went. 4. Then returning, "Nothing, not the faeces recent covered." 5. "One little time, my sister's son, try, my sister's son, once more try." 6. Then Mouse the same said whenever he returned. 7. "Hihi, sister's son, yes, long not has snowed," so then said went out. 8. Then in the snow to nose reached.

3. THE CANNIBAL OWL⁶

1. Once a child would not stop crying; without avail they teased, not it ceased crying, so it howled, after all were asleep the people on them crying, so it howled. 2. Then its mother tried to scare it, "Here you, over there, the Owl hears, you had better not cry, go to sleep," so its mother tried to tell it all the time. 3. Then the child not ceased, so it howled. 4. Then the cannibal, so called, hearing it came, the cannibal, here from there people destroying wholly, doing so came. 5. Then its mother heard her but not told it. 6. Then the child perceived her. 8. "Eda, my mother, what is that emerging coming?"

⁶ Phonograph records nos. 1099, 2007, 2008.

hitā'tu tsibu'igina mī'ga. 9. Hitu' eda' mi'ga eni'si su opia' ota'mi ododza'gahu. 10. Ya'isiga su pa'idzo'o tehkawo'nowaitu owena'ihu tsibu'ikuha tenobi'tamisu. 11. Yai'si yaga'mina. 12. Yaisi tenobi'kwai pite'gasi. 13. Yaisi tepi'kuba odege' otsoho' otsoho'na. 14. Ya'isi ku iki'dzopigi' igi'tsagati. 15. Yai'si m piza'kama mi'ga eni'na ku iki'dzopigik' igi'tsagati. 16. Mi'su muhi' nana'tenitu'ibeno'o.

4. THREE SONGS OF A SHAMAN

A

Ana'wina papu'itepi mayu'na papu'itepi mayu'na wena'nemiyu ana'wina'a.

B

Mi'isu wa'ikota ku nemu'guanakisi ku neme' mugu'a mago'tekwesi mi'i eni'si hubi'atu.

Ana'waina neme' suña'pe tsibu'ina toha' pabi'tsi kekwe'si kumi'ba tawā'gatu pono'no kwei'gina neme' suña'pe kekwe'si kumi'ba tawa'gatu pono'no kwei'gina.

Mi'i ena'wi mihi hubi'agayu su neme' mugu'a mago'tedE mi mi'en'i na mihi hubi'agayu.

C

Ana'wina neme' suña'pe tsibu'ina kumi'ba tawā'gatu tsibu'idzaganā mi'i ena'wiyu.

1. Mi'su pubuha'gayu tu'i'enawi. 2. Ku neme' mugu'a tsibu'isi kudu'i' magote'na magote'kwe mi eni'si. 3. Mi tu'i' ena'wi no'o'kosu hubi'abi tu'i nima'nakatsagasi tetea' tu'i' mani' nata'mosi. 4. Osapa' neme' mawe'ke seze'menatui su pubuha'gayu neme' mago'te seze'mena tewa'su ka'i seze'mena mi'i tu'i' ena'wisisapa omayamo.

5. AN INCIDENT

1. Se'me nemi' wahayuna ya'isi aga'i mo'kwetina. 2. Te'tsiku nemi' wege'na'a ka'na. 3. Ya'isi su mikwege'na'a nemi'no a'noaki ne ya'isi pa'wai ne tu'i' habi'hubite. 4. Ya'isi su mi tu'i'si pa'wai habi'hu pite'ga wege'na'a. 5. Ya'isi sibua'a ku puku'ma tsaka'dEpite. 6. Ya'isi nemi' ku te'kakaikepe tsakwe'mitakwati. 7. Ya'isi sibua'a ku puku' tsatsi'pogi mite'kakaikepe nemi' ya'isi o'itu totsipo'kakwati mikwege'na'a nemi' o'itu tago'ti. 8. Uhu nemi' mani'si kogo'tega-kwati.

it said. 9. "What, eda?" said mockingly its mother, towards her pushed it. 10. Then the cannibal in her burden basket setting it, went out toward her house. 11. Then it cried. 12. Then at her house arrived. 13. Then on a rock she placed it, pounded it, pounded it. 14. Then the brains she scooped out. 15. Then "M! it tastes good!" so she said, the brains scooped out. 16. So the Owl they tell the story about.

4. THREE SONGS OF A SHAMAN.⁷

A

[Song:] Noise water-blue-rock on water-blue-rock on stand noise.

B

Thus Waikota: "The soul pursuing, the person's soul bring back," so said sang.

[Song:] Noise, person's spirit emerges, white weasel carries it crosswise in its mouth, sky hole at rolling descends, person's spirit carries in mouth, sky hole at rolling descends.

Thus he shouted, so he sang, the person's soul brought back as he said, so he sang.

C

[Song:] Noise, person's spirit emerges, sky hole at emerges end-wise, thus shouts.

1. That is what the shamans said. 2. The person's soul leaves, try to bring it back, will bring it back, so said. 3. So all shouted, all kinds of songs, all mocking, unskilful trying to do, sit about. 4. Then person let fall once only, the shamans the person bring back, once try, not once so might shout drop dead.

5. AN INCIDENT

1. Once we two then trout went to get. 2. Small we wagon had. 3. Then our wagon with us fell, I then in water I nearly fell into. 4. Then our horse in water falling arrived wagon. 5. Then my friend the horse took hold of. 6. Then we the harness took off. 7. Then my friend the horse pulled out, our harness we then there cut, our wagon we there broke. 8. Thus we did, returned.

⁷ Phonograph records nos. 1999, 2007, 2008.



TEXT ANALYSES OF THREE
YANA DIALECTS

BY
EDWARD SAPIR



TEXT ANALYSES OF THREE YANA DIALECTS

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INTRODUCTORY REMARKS

Of the four Yana dialects that constitute the Yanan group of Hokan languages—Northern, Central, and Southern Yana, and southernmost Yana or Yahi—texts have been secured from all but one, the Southern Yana dialect. This dialect was spoken by Sam Batwi, my Central Yana informant, in his childhood, but was exchanged early in life for the Central dialect. When I worked with him in 1907, he could give only isolated words and phrases of his old dialect, which was then extinct. The probability is strong that Southern Yana was a link between the Central and Yahi dialects, with a leaning, I surmise, to Yahi rather than to Central Yana. The Central and Northern dialects, though neatly distinct on a number of phonetic points, are mutually intelligible without difficulty. Yahi is very close in all essential respects to the two northern forms of Yana, but there are enough differences in phonetics, vocabulary, and morphology to put it in a class by itself as contrasted with the other two. It is doubtful if a Northern or Central Yana Indian could understand Yahi perfectly, but it is certain that he could make out practically all of it after a brief contact. On the whole, Yahi is the most archaic of the three dialects; it is also appreciably harsher to the ear than the other two. Or rather, was, for with the death of Ishi, the last Indian to speak Yahi, this dialect, too, became extinct. Possibly there are still one or two Indians who know Central Yana and a handful who can speak or who know something of Northern Yana, but it can hardly be more than a matter of ten or fifteen years before Yana, like Esselen and Chimariko, becomes one of the extinct Hokan languages of California.

The Central and Northern Yana texts that I secured in 1907 were published in 1910 as vol. 9, no. 1 of the present series. The Central Yana text analyzed in this paper is the first two paragraphs of a fairly long myth, "Bluejay's Journey to the Land of the Moon,"

of which a variant has been published by Jeremiah Curtin. The Northern Yana text that I have chosen is a little more than half of a personal narrative of Betty Brown's. These two texts illustrate not only differences of dialect but of narrative type. The former uses verb forms appropriate to a myth, the latter more nearly reproduces the language of daily intercourse. The Yahi text is but a brief fragment of a mythical narrative.

At the time that I was working among the northern Yana survivors in 1907, the mysterious "Kombo" described by Powers were generally believed to be either a myth or safely extinct. The startling appearance on the Californian scene of Ishi in 1911 gave these old rumors an unexpected confirmation and American philology a new language with which to grapple. Little, however, was or could be done with Ishi's language till he had learned enough of the white man's ways and speech to make at least an elementary communication possible. The Yahi texts and grammatical information that are now in my hands were secured from him in the summer of 1915. Toward the end of my stay in Berkeley Ishi became ill. He never recovered. Throughout the period of my work with him, he was gentle and patient to a degree. Had he been surly, like several of the more northern Yana I have known, progress in this most nerve-racking of researches would have been impossible. It should be remembered by any one who makes a study of Part III of this paper and who may be inclined to feel annoyance at the gaps in my analysis that Ishi's English was of the crudest. "Him's no good" did duty for "He (or it) is bad" or "That is not correct," while "sista" might mean equally "sister" or "brother." Ishi was perfectly willing to dictate and to interpret; the difficulties followed unavoidably from the circumstances. In going over his texts for interlinear translations—and it proved a difficult task to hold Ishi in leash in the matter of speed of dictation—I endeavored to use every tittle of evidence that I could muster, Ishi's "explanation" of the single words, his accompanying gestures, the context of the myth itself, and, most important of all, the analogies of the northern dialects. Had Yahi proved to be less closely related to these dialects than it is, it is difficult to believe that it would have been feasible to secure from Ishi more than merely lexical information. As it is, Yahi not only receives abundant light from the northern dialects, but is now able to reflect light upon them on a number of fundamental points of phonology and even of morphology. As regards the purely phonetic record, I consider the Yahi material as

superior, if anything, to that of the other dialects. Many of the morphological obscurities that still remain are sure to be dissipated when all the dialectic material has been systematically made available for comparison.

Yana is neither difficult nor complex in syntactic and formal respects. On the other hand, it is quite complex in its etymology. There is an endless array of "secondary stems" and derivative suffixes, and many of these undergo or induce phonetic changes under appropriate circumstances. Hence I have thought it wiser to refrain from giving long texts, and to bring together in the notes enough comparable material to lay the word structure of Yana clearly before the student. I have numbered the notes to the three texts consecutively in order to facilitate cross-reference. The orthography employed in my *Yana Texts* is retained except for the glottal stop, which is here indicated by the apostrophe (').

I. ANALYSIS OF A CENTRAL YANA TEXT

BLUEJAY'S JOURNEY TO THE LAND OF THE MOON¹

'a'n't' ¹	aite ²	yā'na ³	k' ⁴	yā'map!ayauna ⁵	k'ē'te'līwāla ⁶
They were many	the	people	their	dwelling with him	Bluejay.
mitc!i'gun't'i' ⁷	om'dji'yau ⁸	gi ⁹	ba'na ¹⁰	wak!a'lpa' ¹¹	gi ¹²
He had sweat-house	killing	to	deer.	He had as wife	to
'ite'līnmari'mi ¹³	k'ē'te'līwāla ¹⁴	yō'hai' ¹⁵	ai ¹⁶	'ite!i'nmari'mi	
Wildcat Woman	Bluejay.	She was pregnant	she	Wildcat Woman.	
am'dji'yau ¹⁷	ban ¹⁸	ai	k'ē'te'līwāla ¹⁹	mitc!ā'ba'	ai ²⁰ k'ē'te'līwāla
Being killed	deer	he	Bluejay	was lucky man	he Bluejay,
djo'yura'idibil'a ²¹	k'u'ls'i'ayauna ²²	gi	ba'na	ba'ri ²³	djū'ri ²⁴
he had it hanging all	causing it to be dry	to	deer meat.	It rained,	it snowed.
over to dry					
wayu'ndin't ²⁵	ai ¹⁶	ma'ri'mi ²⁶	wa'yū' ²⁷	aigit ²⁸	'i'gunmat' ^{u29}
Now she gave birth	she	woman,	she gave birth	at the	sweat-house place
to child			to child		
īwū'lu ³⁰	k'u ³¹	dē'waiyau ³²	'ai ³³	k'ē'te'līwāla	wa'yūyauk'i'a ³⁴
inside,	not	seeing	he	Bluejay	she giving birth to child.
p'ō'djan' ³⁵	ai	'ite'līnmari'mi	k' ³⁶	dā't'i ³⁷	nīdū'an ³⁸ ai
She hathed him	she	Wildcat Woman	her	child.	He arrived home he
k'ē'te'līwāla	mumarsi'ndj ³⁹	t'i'n't' ⁴⁰	ai	'ite!i'nmari'mi	
Bluejay.	"I have hahy,"	she said	she	Wildcat Woman	
gayā'wauyau ⁴¹	gi	k'ē'te'līwāla	ā'	t!lin'gumauna ⁴²	gayā'n't' ⁴³
talking to him	to	Bluejay.	"So!"	heing little	he spoke,
gak!é'railaugun't ⁴⁴	gat'djā'playauna ⁴⁵	bas.i'andik'i ⁴⁶	p'ō'djan-		
be just spoke drawling out	answering.	When it was	now bathing		
slowly		already night	him		
'ayauant' ⁴⁷	k' ⁴⁸	dā't'i	han'a'ip!ama ⁴⁸	wā'k'iram ⁴⁹	ai
	her	child,	it was morning,	he stood outside	he
k'ē'te'līwāla	gi	'i'gunna ⁵⁰	gawa'udibil' ⁵¹	'im'il'a'biyau ⁵²	gi
Bluejay	at	sweat-house.	He shouted around to them	waking them up	to
yā' ⁵³	p'i'ba'lwi'i ⁵⁴	ga'ihaupla'a ⁵⁵	ga'im'djip!a'a ⁵⁶	dō's·it'i ⁵⁷	
people.	"Get up, all of you!"	he was heard	he was heard	"Flake flints"	
		shouting east,	shouting west.		

¹ See *Yana Texts*, pp. 50-52.

amū¹⁵⁸ dju⁵⁹ mann'i⁶⁰ gi⁶¹ 'a'una⁶² gi'maiha'nik⁶³ ba'na
 warm up the your bows at fire! Let us find deer!"
 t'ū⁶⁴ ai yā'na p'i'bal'⁶⁵ k'unū'yau⁶⁶ 'iyū'is · i⁶⁷ nīs · ā'-
 They they people. They got up not yet being be day. Now they went off
 did so
 andi⁶⁸ aite yā'na ba'iruyauna⁶⁹ nīdā'widibi'lgu's · it!ō'a⁷⁰ t'i⁷¹
 the people going to hunt deer. "I shall just go about beside (you)," he said
 ai k'ē'te!iwāla mumarip'a'us · iwandja⁷² nīs · ā'andi' dji⁷³ yā'na
 he Bluejay. "I have had child born to me." Now they went off the people
 da⁷⁴ 'irā'wiyā⁷⁵ ba'iyauant'⁷⁶ k'u⁷⁷ ba'i⁷⁸ ai k'ē'te!i-
 those common people now hunting deer. Not he hunted deer he Bluejay,
 wāla nihat'd'i'bilgu'i⁷⁹ nīdū'an⁸⁰ k'ē'te!iwāla bā'wis · ak'i⁸⁰
 he merely went about. He arrived home Bluejay when it was dark
 djuk'lunā'duwaldi⁸¹ wadā't'in't⁸² ai k'ē'te!iwāla ba'igumauna⁸³
 he sat down where he was He had child he Bluejay being one.
 u's · i⁸⁴ 'iyū'yaagu'a⁸⁵ i'dja'nyauna⁸⁶ gamā'⁸⁷ aite⁸⁸ dā't'i
 It is two just being days he growing. "Give me the child!"
 'ite'l'nmari'mi du'mmanawau⁸⁹ du'mmanabil⁹⁰ ai
 Wildcat Woman she gave it to him in his arms. He fondled him in his arms he
 k'ē'te!iwāla te!up'pla'nnais .⁹¹ te!up'pla'nnais · dā't'ini'k⁹²
 Bluejay. "He is very good, he is very good our child."
 ya'bidja'iwau⁹³ k'i dā't'i⁹⁴ dut'yā'andin't⁹⁵ k'ē'te!iwānap'landi⁹⁶
 He played with him his child. Now he became older already young Bluejay,
 t'ō'klt'an't'e⁹⁷ 'ai umu'iyā⁹⁸ gi udjī'yā⁹⁹ ya'bidja'i¹⁰⁰ aite
 he looked just like him he young person to old person. He played the
 k'ē'te!iwānap!¹⁰¹ irā'mi¹⁰² outside.

TRANSLATION²

Many were the people that lived together with Bluejay. He had a sweat-house and used to kill deer. Bluejay had as wife Wildeat Woman. Wildeat Woman became pregnant while Bluejay was killing deer. Bluejay had good luck as hunter and had deer meat hanging around all over to dry. It rained and it snowed. The woman gave birth to a child, gave birth to it inside the sweat-house. Bluejay did not see her as she gave birth to her child. Wildeat Woman washed her boy. Bluejay came back home. "I have a baby," said Wildcat Woman, speaking to Bluejay. "Indeed!" he said, speaking only a little. He spoke very slowly as he answered her. During the night she washed her boy, and when it was daylight Bluejay stood outside the sweat-house. He shouted around to his people, waking them up. "Get up, all of you!" His voice was heard in the east, his voice was heard in the west. "Flake your flints! Warm up your bows over the fire! Let us look for deer."

The people did so, they arose while it was not yet day. The people went off to go to hunt deer. "I shall walk around beside you. My wife has given me a baby." The people went off, those people

² See Yana Texts, p. 66.

now hunted deer. But Bluejay did not hunt deer; he just walked around with them. When it was dark Bluejay returned home and sat down where he was always accustomed to sit. Bluejay had one boy. When he had been growing two days (Bluejay said to his wife,) "Give the boy to me." Wildecat Woman gave it to him in his arms and Bluejay fondled him. "He is very pretty, our boy is very pretty," and he played with his child. Young Bluejay grew older and the young man came to look just like his father. Young Bluejay played outside.

GRAMMATICAL NOTES

1. So heard for '*an-n't'*. *'an-*, verb stem used with personal plural subject only: "to go, to be many." *-n't'*, elided from *-n't'i* because of following vowel. *-n't'i* is compounded of *'ni-*, tense suffix referring to definitely past time, and quotative *-t'i*. *-n't'(i)* is regularly used in mythical narrative in Northern Yana; in Central Yana it is often employed too, but may be and generally is replaced, after the first one or two narrative verb forms, by infinitives in *'-(i)*. See Note 11.

2. Definite article, compounded of third personal pronoun *ai* and element *tc*, *tc'*. In Yahi *tc'* occurs regularly as article or personal pronoun without preceding *ai*, far less often in Central Yana; hence *ai-tc* may be interpreted properly as "he-the," *-tc* preceding its noun, while *ai* pleonastically anticipates it. *ai* and *aite*, and other forms built on them, are used indifferently with singular and plural nouns.

3. Noun stem *yā-* "people." *-na*, absolute noun suffix for nouns ending in a long vowel, diphthong, or consonant, also for all monosyllabic nouns (e.g. *yā'-na* "people," *t'u'i-na* "sun," *da'l-la*—assimilated from **dal-na*—"hand," *i'na* "stick"). Polysyllabic nouns ending in a short vowel take no absolute suffix (e.g. *dā't'i* "child," *p'u'it'ukl'u* "skull"). In female forms, however, i.e., in forms used by or in speaking to females, *-na* is never employed. In such cases there is no suffix; thus *yā'na* would be replaced by *yā*.—*yā'na*, as subject, follows its verb.

4. Third person possessive pronoun, used indifferently for singular and plural.

5. *yā-map'a-*: *yā*, verb stem "to dwell" (probably identical with noun stem *yā-* "person, people"); *-map'a-*, verb suffix "with," compounded of *-ma-* "with" and *-p'a-* denoting static condition. *-yauna*, compounded of *-yau-*, verbal noun suffix, and absolute *-na* (see note 3). —Verbal nouns, with or without preceding *k'* (for third persons), are constantly used in Yana as gerunds to express verbal subordination; "their dwelling with him" is equivalent to "as they dwelt" or "who dwelt with him."

6. Unanalyzable noun. *-la*, however, occurs in several nouns. It is possible that, like Chimariko *-l-* of *-l-la*, it is an old diminutive suffix that has hardly retained its force. *k'ē'tc'iwāla* follows *yā'map'ayayuna* as its object, without objective particle *gi* (see note 9), presumably because of static force of *-p'a-*.

7. So heard for *mitcl'i'gunn't'i*. *mitcl-*, verb stem "to have," regularly employed with incorporated noun. *'igun-*, incorporated form of *'igun-na* "sweat-house." *-n't'i*, as in note 1; *-i* is unelided because *om'djī'yau* following is really *'om'djī-*, as shown by later Yahi evidence (in my Central and Northern Yana material I was not always careful to note this initial glottal stop, which inheres in many stems—Yana *'i*—"wood," Mohave *a'i*; Yana *'au*—"fire," Mohave *a'awa*, Salinan *ta'au'*).

8. *om'djī-*, verb stem "to kill," Northern Yana *op'dji*, Yahi *'op'dji-*. *-yau*, gerund (see note 5); absolute *-na* is omitted because *om'djī'yau* is immediately followed by objective *gi ba'na*.

9. *gi* is used as general objective particle with direct, indirect, instrumental, and local objects, which invariably follow. In Yahi there are two syntactic particles of this type, *gi*, used with direct and indirect objects, and *bi*, used with local objects. This *bi* is unknown to Central and Northern Yana. With pronominal *ai* and article *aic'*, *tc'* (see note 2), *gi* combines to form *aigi*, *aigic'*, *gitc'*. It also makes objective forms of demonstratives: *aidje('e)* "this, that," obj. *aididje('e)*; *aiye('e)* "that yonder," obj. contracted to *aige('e)*. From adverbial *aidja*, *aic'* "here, there" is formed objective *aigidja*, *aigic'* "(to) here, there." Possessive articles (*ai)dji* "the" (referring to "mine" or "ours") and (*ai)dju* "the" (referring to "yours") form objective (*ai)gidji* and (*ai)gidju*. With third personal possessive *k'* (see note 4) *gi* combines to form *k'i* (see note 36).

10. *ba-*, noun stem "deer." *-na*, absolute.

11. *wak!alp/a-*, verb "to have as wife, husband," compounded of verb stem *wa-*, which does not occur without derivative suffix or incorporated noun, and suffix *-k!alp/a-*. *wa-*, "to have as (so and so), to consider as," e.g. *wa-nigai-* "to have as son-in-law" (*niga-* "son-in-law"), *wa-dā't'i-mauna* "nephew, considered as one's child" (*dā't'i* "child"). *-k!alp/a-*, secondary verb stem "to keep" (cf. *mits·!-k!alp/a-* "to keep," for *mits·!* - see note 7). *wa-k!alp/a-* "to keep and have as (so and so)" only by idiomatic implication refers to husband or wife; cf. participle *wak!alp/a-mauna* "kept and had as (wife)," i.e. "wife." *-'*, for *-'i*, infinitive used as narrative absolute, tense-modal suffixes being dispensed with. This infinitive appears in four forms: *-i* (male absolute form, see note 79); *-i*, *-'* (female absolute form and form used by both sexes when it is immediately followed by some syntactically connected word, such as subject or objective particle); *-a* (male absolute form of causatives and other verbs in suffixed *-a*, see note 21); *-a* suffix and infinitive suffix contract to *-a*); *-a* (female absolute form and syntactically connected form of *-a*). In Northern Yana infinitives *-i*, *-i* becomes *-a*, *-a* also when it is preceded by any *a-* vowel. Central Yana *bai'i*, *baiⁱ*, *bai* "to hunt deer" appear as such also in Northern Yana; Central Yana *basā'i*, *basāⁱ*, *basā* "to run away" appear in Northern Yana as *basā'a*, *basā*. Causative *bōsa'a-* "to cause to run away" forms infinitive *bōsa'a*, *bōsa'a*, *bōsa* in both dialects. Yahi agrees with Central Yana in its infinitives.

12. Objective particle; see note 9.

13. Compound noun, consisting of *itc!in-* "wildcat" (absolute *itc!i'n-na*) and *ma'ri'mi* "woman." Note that qualifying element precedes. This is true of all compounds of noun and noun, except such as indicate body-part or portion of some designated being or thing (e.g. *ima'-m-ba* "liver-of-deer, deer-liver," Northern Yana *galu'-p-i* "arm-of-tree, branch").

14. See note 6. Subject of sentence, but follows object. This is unusual. More normal would be: *wak!alp/a' ai k'ē'tc!iwāla gi 'itc!i'nmari'mi*.

15. *yōhai-*, verb "to be pregnant." Analysis uncertain; with *yō-* cf. perhaps Northern Yana *yō'yōts!gi* "two mountains where a man used to go to sleep for one or two days when his wife became pregnant" (-*ts!gi*, diminutive plural); with *-hai* cf. perhaps verb suffix *-hai-*, *-xai-* "to rest, to be quiet" (e.g. *wa-hai-* "to rest," *ē-xai-waldi'-a* - "everything is quiet"). *-'*, elided from *-'i* because followed by *ai*, narrative infinitive (see note 11).

16. Third personal subjective pronoun, practically equivalent to article *aic'*; see note 2.

17. *am'djī-*, static or passive form of *om'djī-* (see note 8). *-yau*, gerund (cf. notes 5, 8); absolute *-na* dropped because of syntactic connection with immediately following subject.

18. Elided from *ba-na*; see note 10.

19. *ai k'ē'tc!iwāla* is non-objective in form, though agentive in meaning. Syntactically, *bana* "deer" is subject of gerund *am'djīyau*, but "Bluejay" is felt to be its logical subject and is therefore treated as subjective in form: "being-killed deer (by) him Bluejay, was-lucky he Bluejay."

20. *mitclā'ba-*, "to have good luck;" analysis uncertain. Forms its present without -*si*- suffix: *mitclā'ba-ndja* "I have good luck." -, narrative infinitive.

21. *djo-*-, causative or active form of *dja-* "to hang" (intr.; cf. *dja'-du-* "to hang down," *dja-ts!imāl-wi* "mussel-shell beads"), also *dja-* (in *dja-bil-* "to hang up, intr.," *djō-bil'a-* "to hang up, tr."); *djo-* . . . -*a*-, causative "to cause to hang, to have hanging." -*yurai-*, verb suffix "to dry, for drying;" cf. *wau-yurai-* "several pointed objects are out drying." -*dibil-*, local verb suffix "about, here and there, all over," evidently compounded with -*bil-* "moving about." -*a*, contracted from causative -*a* and infinitive -*i* (see note 11).

22. *k'uls·i-*, verb "to be dry;" *k'ul-* also occurs without -*s·i-* (e.g. *k'ul-t!arakl'i-* "to be exceedingly dry"); -*s·i-*, verb suffix, apparently implies "maturity, filling up, using up" (cf. further *mā-si-* "to be ripe, done," Northern Yana *gī-s·i-tdi-* "to be satiated"); *k'uls·i-* means both "to be dry" and "to feel dry, thirsty" and is perhaps best rendered "to be dried up." -*a*-, causative suffix. -*yau-na*, gerund.

23. *bari-*, verb "to rain," compounded of verb stem *ba-* "to go quickly, run, fall" (does not occur without suffix) and -*ri-*, local suffix "down" (-*di-* after consonants). -, narrative infinitive.

24. *djūri-*, verb "to snow," compounded of verb stem *djū-* "water moves, to stream" (does not occur without suffix; other examples are *djū-dja-* "water rises," *djū-t!al-* "water leaks through." *djū-gil-* "water runs over, gets above a point," *djū-lau-* "to be washed up to shore," *djū-mai-dja-* "creek washes dirt off banks") and -*ri-*, local suffix "down" (cf. note 23). -, narrative infinitive.

25. *wayu-*, verb "to give birth (to)." -*ndi-*, verb suffix marking point of time, translatable as "now, then" or as perfective, but not generally capable of adequate English rendering; after long vowels, diphthongs, and consonants it appears as -*andi-*. -*n-t'*, tense and quotative suffixes (see note 1).

26. Noun; occurs frequently in compounds (cf. note 13; cf. also *wa'alā'-mari'mi* "girl"). It forms its plural from another stem: *p!udi-* (absolute *p!u'di-wi*, *p!u'di-wi* "women;" in compounds -*p!di-wi* or -*p!di*, e.g. *wa'alā'-p!diwi* "girls").

27. *wayū-*, verb "to give birth to" (cf. note 25). -, narrative infinitive.

28. Consists of pronominal *ai*, objective *gi*, and article *tc'* (see notes 2, 9): "it-to-the sweathouse-place," i.e. "at-it, the sweathouse." *gi* in itself does not indicate location, but it helps to give -*mat"* "place" (note 29) prepositional force.

29. Compounded of *īgun-* (see note 7) and -*madu* "place" (cf. verb suffix -*ma-*"there"), of which -*mat"* is feminine or syntactically connected form; properly speaking, -*madu* should be elided before *īwū'lū* to *mad*. -*madu* is used only as second element of nouns of place and may be suffixed only to noun stems; it is no true post-position, though with preceding *gi* it may be best rendered as "at."

30. Local noun in *ī-*, *i-*. -*wūlu*, local suffix "inside," corresponding to verb suffix -*wul-* "in the house, into the house." *īwū'lū* follows "at the sweathouse-place" as adverb. To local verb suffixes, of which Yana possesses a great number, correspond independent local nouns. These are formed, for the most part, by suffixing the verbal local elements to a radical element *ī-*, *i-*, not otherwise employed, so far as known; thus, from -*t'dja* "up" is formed *īt'dja* "up, above," from -*wilau-* "across a creek to the east" is formed *īwū'lau-na* (for -*na*, see note 3). Local elements in -*ri-* or -*di-* add -*k/u*, e.g. *īri-k/u* "below," *iyē'mairi-k/lu* "between." Elements indicating cardinal points are nominalized by suffixing to a radical element *djau-*, Yahi *t'en-* (e.g. Northern and Central Yana *dja'u-hau-na* "east;" Yahi *t'ē'nau-na*, contracted

from *t'en-hau-*); but if these cardinal-point elements are compounded with other preceding local elements, *i*- is used (e.g. *iwī'lau-na* above, contracted from *i-wil-hau-*). A few local elements, such as *-gil-* "over a crest" and *-gin-* "next door," are nominalized without preceding *i*- (e.g. *gī'lau-na* "eastward over the mountains," *gī'nau-na* "next door to the east"). Finally, a few local suffixes have slightly irregular forms in the noun, e.g. *i-wū'lu* "inside," *i-rā'mi* "outside" (cf. verbal *-ram-* "out of the house;" but *-rāmi-* also occurs as verb suffix).

31. *k'u-* "to be not" is generally used as verb, with following infinitive, e.g. *k'us ba'i'i* "he-not-s to-hunt, he does not hunt." In Central Yana it is sometimes used as invariable adverb (cf. also note 77) in gerunds, as here, or in infinitives; yet *k'uyau dē'wai* "being-not to-see" could also have been used (cf. *k'uyau ba'i'i* "not hunting deer," Yana Texts, p. 52, l.10).

32. *dēwai-*, verb "to see," compounded of elements *dē-* and *-wai-*. *dē-*, in certain derivatives of *dēwai-*, is disconnected from *-wai-*, e.g. *dē-dja-wai-p'a-* "to be tired of seeing," *dē-nam'-mai-sa-* (from *-nap'-wai-*) "to see no sign of;" in certain verbs indicating "to see one —ing," *dēwai-* changes to *dē'wi-*, e.g. *dē'wi-sa-* "to see one going away," *dī'wī'-k'am-siwanja* "I am seen coming" (passive form of *dē'wi-*), *dē'wi-mal-* "to see one get shot." *dē-* (static *dī-*, *di-*) occurs without *-wai-* in certain verbs of knowing, looking at, and appearing; e.g. *dē-djiba-* "to know," *dī-wil-k'ui-lau-tc'ui-* "to be cross-eyed." *-wai-* seems to occur also in certain other verbs of perceptive effort, e.g. *wōwai-* "to miss one," *wōwai-k'i-* "to expect one to come," *'ui-wai-* "to whistle after one," possibly also *'ōnina'wai-* "to try, to practise;" analogous to *dē'wi-is gō'wi-* "to hear one —ing," e.g. *gō'wi-k'am-* "to hear one coming," *gō'wi-mal-* "to hear one get shot." We may conclude that *dē-* refers to sight pure and simple; *-wai* and *-wī-*, *-wi-* to purposive perception in general. *-yau*, gerund. *-yau-n a'i* (cf. note 18) would have been more proper for a male addressing a male; *-yau 'ai* is really the female form, which Sam Batwi, the narrator, tended to use absent-mindedly through habit.

33. Glottal stop to mark vocalic hiatus. *ai* indicates following noun as subject of gerund.

34. *wayū-*, see notes 25, 27. *-yau-*, gerund depending on preceding gerund *k'u dē'waiyau*. *-k'i'a* (male), *-k'i* (female), possessive noun suffix indicating that possessor of object or of subject of activity is identical with subject of sentence or clause; *k'i' wa'yuyauna* would indicate that Bluejay did not see another woman, not his own wife, give birth to a child.

35. Elided from *p'ō'djan'a*, narrative infinitive of *p'ōdjan'a-* (see note 11), causative "to bathe (tr.)" of *p'ūdjan-* "to swim, to bathe (intr.)" *p'ū-*, verb stem "to swim" (forms without *-djan-* are, e.g., *p'ū-ts!gil-* "to get into the water," *p'ū-'gai-* "to swim using one's arms," *p'ū-m'dji-* "to swim to the west"); *-djan-*, verb suffix of uncertain significance.

36. Objective form of possessive *k'*; see notes 4, 9.

37. Noun stem, "child" in sense of "one's child;" plural *da'tt'i-wi*.

38. *nī-*, *ni-*, verb stem "to go" (refers to one male); corresponding forms for one female and for several people, male or female, are respectively *'adū'an* and *'a'nduan*. Neither *ni-* nor *'a-* can be used without one or more derivative suffixes. *-dū-*, verbal suffix "back, returning;" after heavy syllables (those ending in consonant, long vowel, or diphthong) and after light syllables if itself followed by two consonants (old vowel elided between them) or under certain other rhythmic circumstances *-du-* is used, generally after light syllables if itself followed by one consonant (*nī-* is properly *ni-*) *-dū-* is used, after heavy syllables and if itself followed by certain other suffixes (e.g. *-sa-* "off," *-k'i-* "hither") *-du-* is reduced to *-t'u-* (e.g. *'i'-du-bal-* "to be cured," lit. "to go up again;" *ni-du'-t'dja-* "to go up back home;" *ba-dū'-k'i-* "to

come running back;" *wé'-t'u-sa-* "to take back home"). *-an-*, properly *'an-*, verb suffix "arriving." ', narrative infinitive.

39. *mumari-*, verb "to have a new-born baby, to be confined;" analysis uncertain, but cf. *mū-*, *mūma-* "to work" and local verb suffix *-mari-* "down in a hollow." *-si-*, present tense. *-ndj-*, first person singular subject, female form (male: *-ndja*); *-ndja* is contracted from older *-ni-dja*, preserved, as *'nidja*, after heavy syllables (e.g. *mu'mari-mau'-nitc' yā* "being-in-confinement-I person, I am one who is in confinement").

40. *t'i-*, verb stem "to say." *-n't'*, narrative quotative; cf. notes 1, 7, 25.

41. *gayā-*, verb "to talk," formed from verb stem *ga-* "to utter, talk in some way" (numerous verbs are formed from this base, which cannot occur alone; cf. notes 44, 45); *-yā-* is always suffixed to *ga-* when "talking" without particular qualification is meant and is probably identical with *yā-* "person" (see note 3): "to talk, make sound like a person" (for incorporated *-yā-* in a similar function, cf. *djñ-yā-dja-* "to taste like human flesh"). *-wau-*, indirective verb suffix with third personal objects (most verbs take *-p'a-u-* with first and second personal indirect objects or in passive forms, some *-ma-* or *-m-*, e.g. *gayā'wauwindja* "I talk to him," *gayā'p'ausiwindja* "you talk to me;" *mauwa'usindja* "I teach him," *ma'umasiwandja* "he teaches me;" *t'i'wauwindja* "I tell him," *t'i'msiwa'a* "he is told by him"). *-yau*, gerund.

42. *t'inī-*, verb stem "to be little," also found in derivative noun *t'inī-si* "child" (Northern Yana equivalent of Central *dā'ti*, see note 37). *-gu-*, verb suffix "a little, just;" certain stems, like *t'inī-* and *bai-* "one" nearly always require *-gu-* after them. *-mau-*, participial suffix, active with intransitive verbs (e.g. *basā'mauna* "running away"), passive with transitive verbs (e.g. *mō'mauna* "eaten") but without passive vocalism of stem, e.g. not *ma-*). *-na*, absolute suffix of nouns ending in heavy syllable, participles being reckoned as formally nouns.

43. *gayā*, see note 41. *-n't'*, see note 1.

44. *ga-* "to utter, make a sound" (cf. note 41). *-k'lērai-*, verb suffix "slowly," used after light syllables; after heavy syllables *-k'lirai-* is used (e.g. *p'ū'-k'lirai-m'djagu-si* "he comes swimming slowly"). *-lau-*, verb suffix here meaning "out of the mouth," metaphorically referring to "utterance" (cf. *p'ō'-la-lau-* "to take something chewed out of one's mouth," *ya-lau-* "to have blood flowing out of one's mouth," *'ē-lau-* "to sing"); its more general meaning is "out into the open" and it may be used to mean "out from the ground" (e.g. *ba-lau-* "plant grows"), "away from the body" (e.g. *ul-lau-* "to stick out one's feet," *dō-l'i-lau-* "to take off one's hat"), "out of the fire," "out of the water" (e.g. *dun'ā-lau-* "to dip up water"), and "from the level up the mountain" (e.g. *ni-du-lau-wadju-* "man comes back up hill from the south;" *djau-du-lō-dju-*, contracted from *-lau-haudju-* "up the mountain from the east," "sun rises"). *-gu*, verb suffix "just" (cf. note 42); certain modal suffixes, like *-k'lērai-* and *-hat-* "in vain, with nothing," seem to require *-gu-* after them. *-n't'*, see note 1.

45. *gat'djāp'a-*, verb "to answer" (without object). *ga-*, see note 41. *-t'djā-* (after light syllables), *-t'dja-* (after heavy syllables) "in answer" (cf. *dja-t'djā-si-wandja* "he bites me back, in order to get even with me," *ui-t'dja-p'a-a-* "to whistle back at one"). *-p'a-*, medio-passive verb suffix, generally denoting condition as such or condition resulting from activity. Sometimes it denotes reflexive or indirect reflexive activity; here it seems to denote naturally transitive activity conceived of as without object (cf. *uē'ya-p'a-si-ndja* "I do not believe it," but *ui'ya-si-wandja* "he does not believe me"). Properly, medio-passive *-p'a-* demands static vocalism of stem (e.g. Northern Yana *dju-k'arat-p'a-* "[ground] is too hard for digging," contrast *djō-k'arat-* "to dig for roots but to find ground too hard;" *ap'djñ-p'a-* "to kill oneself," contrast

op'dji- "to kill"); but there are certain verbs in *-p'a-* (like *wêya-p'a-* above), apparently not properly medio-passive, that have active vocalism in stem. *-yau-*, gerund. *-na*, absolute noun suffix.

46. *bas·t̄i*, verb "to be night." *-andi-*, properly *-andi-* (secondary glottal stops, i.e. such as arise from vocalic hiatus, are often very weakly articulated; *-andi-* is particularly frequent), form of *-ndi-* employed after heavy syllables, see note 25. *-k'i* connected form of *-k'i'a* (female form *-k'i*, connected *-k'*), properly possessive (cf. note 34) but here used, as often, to indicate adverbial or subordinated use of certain time verbs (e.g. "to be night," "to be dark," "to be dawn," "to be day;" cf. note 80).

47. *p'ô-djan'a-* "to bathe," causative verb (cf. note 35). *-yau-*, gerund. *-ant'i*, for *-ant'i* (see note 46), connected form of *-andi* (see note 25).

48. *han'ai-*, also heard as *ha'nai-*, diminutive form of *ha'lai-* "to be dawn, daylight;" *l* is changed to *n* in diminutive forms (e.g. *na'n-p'a* "little foot" from *la'l-la* "foot"). *-p'a*, verb suffix indicating state (cf. note 45); *han'aip/a-* "to be early morning, before sunrise (another) day has begun." *-ma-*, frequently used in Central Yana with *han'aip/a-*; possibly conventionalized use of local verb suffix *-ma-* "there." *-*, narrative infinitive.

49. *wâk'i-*, verb "to stand;" *wâk!-* before certain suffixes, e.g. *wâk!-dibil-* "to stand" (in general), *wâk!-bal-* "to stand up (from sitting position)." *wâk'i-*, *wâk!-* is composed of *wâ-*, probably lengthened form of *wa-* "to sit" (contrast *wa-k!-di-* "to sit on") and *-k'i-*, *-k!*, verb suffix "(sitting, standing, stepping) on" (always followed by another local suffix). *-ram-*, verb suffix "outside, out of the house;" appears as *-dam-* after consonants, also as *-râmi-* and *-dâmi-*. *-*, narrative infinitive.

50. *'igun-*, noun stem "sweat-house" (cf. notes 7, 29). *-na*, absolute noun suffix.

51. *ga-*, verb stem "to talk, utter sounds" (cf. notes 41, 43, 44, 45). *-wau-*, indirective verb suffix "to" (cf. *gayâ-wau-* "to talk to," see note 43); *ga-wau-* as unextended verb-complex indicates "to talk about (somebody)," but keeps its primary etymological significance when followed by *-dibil-*. *-dibil-* (probably itself compounded of *-di-* and *-bil-* "moving about"), verb suffix "here and there, all over, at random." *-i*, narrative infinitive; should, properly, be elided to *-* before following *i*.

52. *'im'ilabi-*, with glide *-i*, before *y*, for *'im'ilap-*, verb "to wake up" (tr.). Consists of verb stem *'im-* "to drive off, to get to do" (e.g. *'im-sa-* "to drive away," *'im-mau-ru-* for *'im-wau-ru-* "to tell one to get"); and secondary verb stem *'ilap-* "to wake up" (cf. *gui-'ilap-* "to wake up a person with noise," *p'u-'ilam-marâ-'nidja* "I was awakened by being blown upon;" intransitive are *mi-lap-* "one person awakes," *p'i-lap-* "several awake"), perhaps composed of indirective *-i-* "(to get) after, (to go over) to" and intransitive *-lap-*; C. Yana *-lap-* for expected *-lam-* is anomalous (such forms as *'ilam-marâ-* above, assimilated from *'ilam-warâ-*, suggest that *-lam-* is its original form, whence regular N. Yana development to *-lap-* unless protected by assimilation). *-yau*, gerund; connected form of *yau-na*.

53. *yâ*, noun stem "people" (cf. note 3). Feminine form. We should, properly, have *yâ'na*.

54. *p'i-*, shortened, because in closed syllable, from *p'î-*, verb stem "several go," plural of *î-* "one person goes, moves." *-bal-*, C. Yana form of N. Yana *-t'-bal-*, verb suffix "arising, starting up." *-t'-bal-* is compounded of *-t'-*, which does not seem to occur alone, and *-bal-*, verb suffix "up from the ground, moving up" (e.g. *'eba-bal-* "to pull up," *yat-tai-bal-* "to blaze up"); *-t'-* apparently adds to *-bal-* the idea of movement from a definite point as contrasted with undefined movement or movement to a definite point (cf. further N. Yana *dji-t'-bal-* "smoke goes up," *da-t'-bal-* "to jump"). *-wi'i* (connected and female form: *-wi'*), imperative of second person

plural; composed of *-wi-*, second person plural element in imperatives and (as *-wī-*) in transitive forms with first person object (e.g. *diwa'isiwawīdja* "ye see me," *diwa'isiwawīgi* "ye will see us"), and second person singular imperative *-'i'* (female form *-'i,-'*).

55. *gai-*, static or passive form of *gui-*, verb "to hear —ing" (e.g. *gui-sa-gu-* "to hear somebody talking in the distance"); *gui-* is compounded of *gō-* "to hear" and *-i-*, verb suffix indicating "off, from, away" (e.g. *wī-sa'-i-warā* "it has been stolen away"); "to hear off," i.e. "to hear something of what is going on, to partake of by hearing;" *gō-i-*, making a single syllable, contracts to *goi-* (preserved in Yahi), which shifts in N. and C. Yana to *gui-*. *-hau-*, local verb suffix "in the east." *-p'a-*, medio-passive verb suffix ordinarily demanding static vocalism of stem syllable (*gui-hau-* "to hear a sound in the east," *gai-hau-p'a-* "a sound is heard in the east"). *-a*, contracted from verb suffix *-a-* and infinitive *-i* (cf. notes 21, 35). This derivational *-a-* acts like causative *-a-* (as regards position and contraction), but does not restore active vocalism (*gui-*) of stem syllable; presumably many verbs in *-p'a-a-* are not causatives from medio-passives in *-p/a-* but contain *-p/a-* and intransitive *-a-* "to be" (cf. such forms as *mī-wil-k'ui'-di'-a-* "to be cross-eyed," *lulmai'-a-* "to be blind," *au'-a-* "there is fire"), *gai-hau-p/a'-a-* perhaps signifying more properly "to be audible in the east."

56. Analysis as in note 55 except that local verb suffix *-m'dji-* "in the west" is substituted for *-hau-*.

57. *dō-*, verb stem referring to "removal, clearing off of loose material" (e.g. *dō-gal'di-* "to peel off skin," *dō-k'al'di-* "to brush," *dō-k'al-yauna* "brush for acorn flour"); cf. Yahi *dō-sit'-* "to flake an obsidian point," *dā-p.dja-* (with static vocalism) "to be flaking off chips." *-s.it'-*, secondary verb stem apparently referring to "flaking." *-'i'*, second person singular imperative. Chiefs frequently addressed their people in the singular, because they were thought of collectively as a unified group. One would have expected *dā's.it'i'*, with static vocalism, as imperatives are regularly treated like static, not active, forms; cf. note 58

58. *amū'-*, static form of *ō'mu-*, transitive verb "to warm up;" the change from static to active or active to static is frequently accompanied, where there is a change in the quantity and stress of the stem vowel, by a compensating inverse change in the quantity and stress of the following vowel (cf. *'a-dū'-djil-* "a woman goes clear around back to starting point," causative *'ō'-du-djil'-a-*; *'ō'nina'-wai-* "to try, to practise," in passive forms *'anī'na'wai-*). *ō'- (a)-*, primary verb stem of unknown significance. *-mu-* (*-mū-*), secondary verb stem referring to "warmth" (cf. *ne'-mu-* "to warm one's feet by the fire;" N. Yana *hā-mu-tdi-* "to feel warm"). *-i*, connected form of *-'i'*, second person singular imperative (cf. note 57). Active verb forms become static in the imperative and, if followed by an object, omit *gi*. Imperative constructions, like transitives with first or second personal objects, are really passives or passive-like; thus, "warm up your bow!" is probably more accurately rendered "let your bow be warmed up!" just as "you see me" is properly "I am seen (by you)."

59. *dju*, possessive article of second person; used for both singular and plural of second person. In the singular the noun may or may not be provided with the pronominal suffix-*numa* (fem. form *-nu*), the plural regularly has *-nuga* (fem. form *-nuk'*); thus, *dju wa'wi* or *dju wawi'numa* "your house," *dju wawi'nuga* "your (pl.) house." Corresponding to *dju* is *dji* for the first person: *dji wa'wi* or *dji wawi'ndja* "my house," *dji wawi'nigi* "our house." The change from *i* to *u* is exactly parallel to the *i-u* alternation in the pronominal suffixes: *bē'-ni-dja* "it is I" and *bē'-ni-gi* "it is we," but *bē'-nu-ma* "it is you" and *bē'-nu-ga* "it is you (pl.)." *dj-* of *dji* and *dju* is probably identical with article *tc* and demonstrative *-dje-* of *aidje'(e)* (see note 2). That *-i* and *-u* are old demonstrative elements that have combined with this

dj-(-*dje*-), not true pronouns, is indicated by Yahi, which suffixes true possessive pronominal elements in the second person singular and first person plural: *dji* "my," *dju-m* "your," *dji-n* "our," *dju-m* · · · -*nu-m-gi* "your (pl.)." (-*numgi* corresponds to N. and C. Yana -*nuga*).

- 60. Noun stem. N. Yana: *ma'n ni*.
- 61. Objective particle, here used locally.
- 62. '*au*-, noun stem "fire." -*na*, absolute noun suffix.
- 63. *gī-mai*-, verb "to be bent on (pursuit of game) successfully." *gī*-, primary verb stem "to have in mind" (cf. *gī-ma* "to be sensible," *gī-mau-p/a* "to be glad," *gī-s·ams·i-p/a* "to be sleepy," *gī-ma-sā* "to brood"). -*mai*-, verb suffix of "pursuit, following after" (e.g. *ō-mai* "to track," *ne'-mai* "to follow one's footprints," *minin-ts/xaya-mai-gu* "to just look secretly after," i.e. "to think about one"), sometimes implying successful result after unsuccessful attempts (e.g. *e'-gan-mai* "to break for once and all"). -*ha'-nik'*, connected form of -*ha'-nigi*, first person plural hortatory; consists of -*ha*-, tense suffix of recent past stated on speaker's authority and -(*'*)*nigi*, first person plural subjective element. What idiomatic nuance makes -*ha'-nigi* hortatory in N. and C. Yana is not clear (Yahi uses -*ga* as hortatory). In true preterit forms -*k'ia*- precedes (e.g. *gī-maik'iha'nigi* "we found game"). Observe that objective *gi* is lacking as after imperative forms (cf. note 58).
- 64. *tū*-, verb stem "to do, to act thus." -, narrative infinitive.
- 65. *p'i'-bal*-, see note 54. -, narrative infinitive.
- 66. *k'unū*-, verb "to be not yet;" consists of negative verb *k'u*- (see note 31) and -*nū*-, not otherwise found but clearly related to -*k'unu*-, adverbial verb suffix "yet, still" (e.g. *i'-k'unu'-a-si* "there is wood there yet"). Possibly *k'unū*- is contracted from *k'uk'unu*-. -*yau*, gerund, connected form. For -*yau* followed by vocalic hiatus instead of -*yau-n(a)*, cf. note 32.
- 67. '-', secondary glottal stop to mark vocalic hiatus. *iyūi*-, verb "to be day" (cf. *iyū'isi* "it is day," *iyū'ik'i'a* "in the daytime"), apparently denominative verb in -*i*- (cf. *ba-i* "to hunt deer" from *ba* "deer"; see note 69) from *i-yū*-, *ī-yū* "day," not used as such; *i-yū*- consists of adverbial "stem" *i*-, *ī*- (see note 30) and -*yū*-, -*yū*-, verb suffix "during the day, all day" (e.g. *ga'lā-yu* "to cry all day"). -*s·i*-, verb suffix of uncertain significance; possibly indicates "fulness, satiety" as in note 22: "when it was not yet fully day." -, infinitive depending on preceding negative verb.
- 68. *nī*-, verb stem "one male goes;" singular used, though verb is logically plural. -*s·ā*-, local verb suffix "off, away." -*andi*-, as in note 46. -, narrative infinitive.
- 69. *bai*-, verb "to hunt deer," denominative verb from *ba* "deer." Noun stems ending in short vowels, except *i*, are turned into denominative verbs indicating "to get—, to seek—" by suffixing -*i*- (identical with -*i*- of incorporated noun stems ending in short vowels; with *bai* cf. incorporated -*wai*, e.g. *dī-wa'i-si* "it tastes like deer-meat"); other nouns become verbs of this type without verbifying suffix (e.g. *dāsi* "salmon," *dāsisindja* "I catch salmon;" *djav* "grasshopper," *djausindja* "I pick grasshoppers"). -*ru*- (-*du*- after consonants), verb suffix "to go in order to . ." -*yau*-, gerund. -*na*, absolute noun suffix.
- 70. *nī*-, see notes 38, 68. -*dāwi*-, -*rāwi*-, local verb suffix "on the side" (cf. *ba-rāwi* "to run on the side," *ī-rā'wi-yā* "side-people, common people"). -*dibil*-, verb suffix "here and there, all over" (cf. note 21). -*gu*-, modal verb suffix "just, merely." -*s·i-t!ō'a* (female form -*s·i-t!ō*), first person singular subjective future; -*s·i*- is future (third person -*s·i'i*), while -*t!ō'(a)* (N. Yana -*k!ō'a*) is used as first person pronominal element in future forms.
- 71. *tī*-, verb stem "to say" (cf. note 40). -, narrative infinitive.

72. *mumari-* "to give birth to a child" (cf. note 39). *-p'au-*, indirective "for to," used in passive forms (including transitive forms with first or second personal object), corresponding to *-wau-* of active forms (transitives with third personal object). *-s·i-*, present temporal suffix. *-wa-ndja* "he—me," better understood as composed of passive *-wa-* and *-ndja*, first person singular subjective pronominal suffix (masculine form; contrast feminine *-ndj*, note 39).

73. Equivalent to *te* (see note 2) with *i-* glide because of following *y-*.

74. *da-*, demonstrative element "that, those," with strong deictic feeling (e.g. *da 'twi'l'djamiyā* "those Northern Indians living across the creek," pointing; cf. denominative verb *dō-ai-* "to point"). More frequently *da* occurs compounded as *ada'iri*.

75. *'-*, marks vocalic hiatus. *ī-rāwi-*, local noun "on the side," formed from local verb suffix *-rāwi-* (see note 70) and adverbial *ī-* (cf. note 30). *-yā*, compounded form of *yā-na* "people" (cf. note 3).

76. *bai-*, see note 69. *-yau-*, gerund. *-ant'i*, see note 47.

77. Negative verb used as adverb; cf. note 31.

78. *bai-*, see note 69. *'-*, narrative infinitive.

79. *ni-*, verb stem "one male goes." *-hat'-*, verb suffix "nothing but, merely, without purpose or result" (cf. *nī-hat'* "to come with nothing, without game as result of hunting," *ga'lā-hat'-gu-* "to do nothing but cry"). *-dibil-*, verb suffix "about, here and there" (cf. notes 21, 51, 70); *-dibil-*, for *-dibil-*, is unusual. *-gu-*, verb suffix "just" (cf. nos. 42, 44, 70), nearly always used with preceding *-hat'-*. *-i*, narrative infinitive.

80. *bāwi-s·a-*, verb "to be dark, nightfall;" *bāwi-* possibly related to *ba-* of *bas·ī-* "to be night" (cf. note 46). *-s·a-*, verb suffix "off, away," not infrequently used in such adjectival verbs or verbs of condition as refer to appearance (e.g. *dambu-sa-* "to be pretty," *da-p'al-sa-* "to be black," *dā-lili-ba-sa-* "ground is all covered with ice"). *-k'i*, as in note 46.

81. *dju-*, primary verb stem "to sit, to stay, to dwell" (cf. *djō'na*, contracted from *dju-ha'u-na* "dwelling-east," i.e. "Hat Creek Indian"). *-k!unā-*, for *-k!un'ā-* (*-k!un'a-* after heavy syllables), secondary verb stem referring to "sitting, staying," apparently used only with primary stems (such as *dju-*, *wa-* "one is seated," *yai-* "several sit, stay") that have a like significance. *dju-k!un'ā-* "to be sitting, to dwell" is characteristic of C. Yana (cf. also *Yahi dju-k!ola-ri-*); in N. Yana *wa-k!un'ā-* (plur. *yai-k!un'a-*) is used. *k!un'ā-* appears in primary position only in certain noun compounds: *k!un'ā-mari'mi-p'a* "sit-woman-little," i.e. "old woman," plur. *k!ū'nā'-p!diwi* "old women." *-du-*, verb suffix "back, again" (cf. *-dū-* in note 38), implying that he resumed his usual seat. *-waldi-*, local verb suffix "down on the ground," composed of *-wal-* (which occurs only combined with following local elements) "on the ground" (this significance is merely inferred by elimination of other elements) and *-di-* "down" (cf. *-ri-*, notes 23, 24). *'-*, narrative infinitive.

82. *wa-*, verb stem "to have as . . ." (with incorporated object; cf. also note 11). *-dāt'i-*, incorporated noun "child" (cf. note 37). *-n't'*, see note 1.

83. *bai-*, numeral verb stem "to be one." *-gu-*, verb suffix "just," almost invariably employed with *bai-*. *-mau-*, participial suffix, makes nominal or adjectival forms out of verbs; it has a passive significance with transitive verbs but causes no change in static vocalism of the stem (e.g. *basā'mauna* "running off," but *dē'wai-mauna* "seen," not "seeing"). *-na*, absolute noun suffix.

84. *u'-*, numeral verb stem "to be two." *-s·i-*, lengthened form of *-s·i-*, third person present indicative. *u'-* has the peculiar property of lengthening the vowel of the following syllable or of the next syllable but one provided this vowel stands or originally stood in an open syllable; e.g., *u'-mits·l̄t'-mau-na* "being two together" (contrast *bu'l-mits·!i-mau-na* "being three together"), *u'-djā'ri-si* "there are two

(houses) up" (contrast *ba'i-djari-gu-si* "there is one house up"). If the following syllable normally has a lost vowel, it is restored, lengthened, after *u'-*; e.g., *u'-s·i'dja-* "to be twice" (contrast *bu'l-s·dja-* "to be three times").

85. *i'yūi-*, as in note 67. *-yau-*, verbal noun: "being day." This verbal noun is again verbalized by *-gu'a-*. *-gu-*, modal derivative suffix "just." *-a-*, contracted from *-a-*, verbifying element "to be" used with nouns (e.g. *'a'u-a-si* "there is fire"), and *-i*, infinitive (complementary to preceding verb); cf. notes 21, 35, 55. Literally, "there-are-two-to-be-just-being-day."

86. *i'djan-*, verb "to grow;" possibly composed of primary stem *i-* and suffixed element *-'djan-*, but I can assign no separate significance to either of these. *-yau-*, gerund. *-na*, absolute noun suffix.

87. Petrified imperative in *-'* (elided and female form for *-i'*), i.e., there seems to be no indicative verb form to correspond; "me" is only implied, and "hand over!" is perhaps a more appropriate rendering. *ga-* is obscure; it can hardly be identical with *ga-* "to utter" (see note 43). *-mā-* (*-ma-* after heavy syllables), indirective "to" in static forms (passives, imperatives, transitives with first and second personal object); other examples are *s·i'-ma-'ā-dja* "give me to drink!" ("cause to me to drink!"), *i'm-ma-ru-si-wandja* "he tells me to go and get it," *ma'u-ma-si-wandja* "he teaches me." As indicative verb *ga-mā-* means "to tell (you, me) to get (it)," e.g. *ga-mā-si-wandja* "he tells me to get it," in which *ga-* evidently means "to utter." Possibly *gamāñ* "give (me)!" is really a polite form, originally: "tell (him) to get it!"

88. See note 2. Note absence of objective *gi*, because of preceding imperative.

89. *dummana-*, verb "to fondle, hold in one's arms" (cf. *dumma'na-si-ndja* "I dandle it," *dumma'na-k!am-si-ndja* "I hug him"). Compounded of *dum-* and *-wana-* (*-mu-* assimilates in N. and C. Yana to *-mm-*, but is preserved in Yahi). *dum-* (Yahi *dom-*), primary verb stem of handling (active vocalism) corresponding to *dam-*, verb of lying (static vocalism). *dam-*, in C. Yana, was defined as "dead animals, fossils lie (in the ground); in Yahi, as "quiver, deer lies." Its true meaning is evidently, at least in origin, "bulky object (like a deer carcass) lies." For *dum-(dom-)*, properly "to handle a bulky object," cf. Yahi *dom-dja-wō-* "to give (him) a deer, rabbit," *dom-dja-walди-* "to put down on the ground (a quiver, book, deer, wild-cat)." *-wana-*, presumably secondary verb stem of "fondling, holding affectionately." *-wau-*, indirective "to" (with third personal object); cf. note 41. *-'*, narrative infinitive.

90. *dum-mana-*, as in note 89. *-bil-*, verb suffix "(moving) about" (cf. *ba-bil-* "to run around," *djū-bil-* "to feel around with a digging stick," *mu-i-bil-* "to eat-off-about, dog scatters bones about in eating"). *-'*, narrative infinitive.

91. *tcl/up-*, verb stem "to be good." *-plan-nai-*, adverbial verb suffix "very, exceedingly." *-s·*, third person present indicative; female form (male: *-s·i*) because Bluejay speaks to his wife.

92. *dāt'i-*, see note 37. *-nik'*, female form of *-nigi* "we; our." It would probably have been more idiomatic to use *dji* before *dāt'inik'* (see note 59).

93. *ya'bidjai-*, verb "to play" (N. Yana *yapbidjai-*). *-bidjai-*, secondary verb stem "to play" (cf. *djñ-djā-bidjai-* "to play at spearing salmon," *dju-bil-bidjai-'a-* "to play shooting around arrows"); evidently based on simpler *-djai-*, found in *yō-gat-djai-'a-* "to play at throwing ball up hill." *ya'-*, unexplained primary stem (cf. perhaps causative derivative *yō . . . -'a-* in *yō-gat-djai-'a-*). *-wau-*, indirective "to, for, with;" cf. note 89. *-'*, narrative infinitive.

94. *k'i dāt'i*, as in notes 36, 37.

95. *dut'-yā-*, verb "to become older," literally "to be much-personed, mature-personed." *dut'-*, verb stem "to be much, mature, older" (cf. *dat'-*, "to be much, many"); *-yā-*, noun stem "person" (cf. note 3). *dut'yā* is also used as noun: "older one, the oldest;" *dut'yā'mari'mi* "older woman." *-andi-*, as in note 68. *-n't'*, as in note 1.

96. *k'ētc!iwāna-*, diminutive form of *k'ētc!iwāla-* "bluejay" (for change of *l* to *n*, cf. note 48). *-p'a-*, diminutive noun suffix. *-ndi*, suffix marking point of time, "now, already" (cf. note 25). Most verbal suffixes cannot be directly attached to nouns, but there is a certain number (such as *-ndi*, *-p!annai-* "very," *-t'imai-* "like-wise") that may be appended to either verbs or nouns.

97. *t'ō- . . . -a-*, causative of *t'ū-* "to do" (see note 64): "to do to, to have one in a certain way, to look like;" *t'ō- . . . -a-* is used in many idiomatic turns that it is difficult to render accurately into English. *-k!t'a-*, adverbial verb suffix "exactly, precisely, just so." *-n't'ē*, elided form of *-n't'ēa*, third person quotative past of causative, contracted from causative *-a-* and tense suffix *-n't'i* (cf. note 1).

98. Compound noun. *u-mui-* "to be young" consists of verb stem *u-* "to be" (cf. *u 'a'i dji dā't'indja* "he is my son;" *u* is used without tense suffixes) and *-mui-*, verb suffix "soon, just (done), in a short lapse of time" (e.g. *mō'-mui-ha-ndja* "I have just been eating," *a'i-mui-s-k'i'a* "soon"). *-yā*, noun stem "person."

99. Compound noun analogous to *umu'iyā* (note 98). *u-djī-* "to be old" (cf. *udjī-mari'mi* "old woman") consists of *u-* "to be" and *-djī-*, verb suffix "old" (I have found this element only with *u-*).

100. *ya'bidjai-*, see note 93. *-*, narrative infinitive.

101. Elided, before following vowel, from *k'ētc!iwānap'a*; see note 96.

102. Local noun consisting of adverbial stem *i-* (cf. notes 30, 67) and *-rāmi*, local verb suffix "outside, out of the house," longer form of *-ram-* (after consonants *-dāmi-*, *-dam-*; cf. note 49).

II. ANALYSIS OF A NORTHERN YANA TEXT

BETTY BROWN'S DREAM³

ha'da'iwaun'ha'ntc ¹⁰³	'aiwī'laun'handj ¹⁰⁴	ai ¹⁰⁵	djite la'u ¹⁰⁶
I dreamt.	I went off eastward across	it	dry creek,
p!alē'wi'inigu'nē'x ¹⁰⁷	aite ^c xa ¹⁰⁸	dats!ga'isan'h ¹⁰⁹	ai p!alē'w ¹¹⁰
it was all covered with moss	the water,	it was green	it moss.
wa'ir ¹¹¹	'a'dja'mn'handj ¹¹²	aits. · ' i'yā ¹¹³	wair ^u wāk!wa'ldin'handj ¹¹⁴
Now	I went north	the trail.	Now I stood
aits. · ima'l'i ¹¹⁵			
the outside.			
'i'wul ¹¹⁶	t'i'mn'hawante ¹¹⁷	ai'sirak'laimau ¹¹⁸	'aite ^c 'i's ¹¹⁹
"Enter!"	he said to me	being all white-haired	the man.
t'ū'winigun'h ¹²⁰	aite ^c mari' ^m ¹²¹	lulma'iyaiwilmi'nē ¹²²	
She also did so	the woman,	she was blind in one eye.	
djīdja'man'hawandj ¹²³	aite ^c dā'rrik! ^u ¹²⁴	wa'dja'ir ⁱ ¹²⁵	minitduwu'ls·ap-
She offered me as seat	the ice	chair.	I looked inside from one
tel'in'ha'ntc ¹²⁶	dā'rrik!lu'i'nigui'nē'x ¹²⁷	djax'wu'ldi'nex ¹²⁸	mō'-
thing to another.	There was nothing but ice,	it was dangling.	"They are
bitdjas ¹²⁹	t'i'ne ^x ¹³⁰	bē'l ¹³³	
about to eat,"	'ē'badjas ¹³¹	t'i'nex	wa'ir ^u ¹³⁴
she said,	aigi ¹³²	wa'ir ^u ¹³⁴	she said. "Now
wamari'si'nu ¹³⁵	wai ^u ¹³⁴	'ibāk!a'psiwa'nu ¹³⁶	wamari'n'ha'ndj ¹³⁷
you will be seated!	now	he will pull you up."	I seated myself.
wair ^u	'ē'bak!ap'atdi'nex ¹³⁸	wak'lunā'n'h ¹³⁹	k!ū'w ¹⁴⁰ aigit ^e ¹⁴¹
Now	he was finished pulling up.	He was sitting	medicine-man there,
gayā'atdi'nex ¹⁴²	ci'tdjut'k'ai ¹⁴³	k!ū'w	yō'layiayu'nē'x ¹⁴⁴
he was already talking.	Rock	medicine-man,	he had white-down net-cap.
aici'rak'lai'ne'x ¹⁴⁵	aik ¹⁴⁶	co'liya'utc ¹⁴⁷	k!unun'hante ¹⁴⁸ wa'yū ¹⁴⁹
he was all white-haired	his	eyelids.	And I was be afraid.
wawa'l'ditdin'handj ¹⁵⁰	aidj ¹⁵¹	mō'yauni'tc ¹⁵²	
1 sat down	the	my eating.	

³ See Yana Texts, pp. 195, 196.

TRANSLATION⁴

I dreamt. I went off towards the east across a dried-up creek; the creek bed was all covered with moss, it was green with moss. Now I went to the north along the trail. Now I stood on the outside (of a house).

"Enter!" said to me a man whose hair was all white. There was also a woman who was blind in one eye. She offered me as a seat a chair of ice. I looked from one thing to another. Everything was made of ice, and it hung down in icicles. "It is near dinner-time," she said. "He will pull the bell," she said. "Now you will be seated, and he will pull you up." I seated myself. Now he had pulled me up. There was a medicine-man sitting there, talking. The medicine-man was made of rock, he had on a net-cap of white down; he was all white-haired, even his eyelashes were white. I was afraid. I sat down to eat.

GRAMMATICAL NOTES

103. *ha'dai-*, verb "to dream;" no further analysis suggests itself. *-wau-*, indicative verb suffix "to, for, about;" "I dreamt about (what follows)." *-n'ha-*, temporal suffix contracted from *'ni-*, referring to past of long standing, and *-ha-*, past tense implying that statement is on speaker's authority; *-n'ha-* is appropriately used in recital of personal experiences, as is *-n'ti-* in that of myths or events known only by hearsay (cf. note 1). *-ntc'*, female form of *-ndja*, first person singular subjective. All forms in this text are female, as they are either used by or addressed to a woman.

104. *'a-*, verb stem "one woman goes." *-i-*, local verb suffix "off, away;" used most frequently with following local suffix, but combined phonetically with preceding vowel without inserted glottal stop (cf. note 55). *-wilau-*, contracted from *-wil-hau-*, compound local verb suffix. *-wil-*, "across, across a creek;" *-hau-* "in the east, to the east." *-n'ha-*, as in note 103. *-ndj*, as in note 103, except that, being syntactically connected with following *ai*, *-dj* remains unaspirated.

105. Third personal pronoun, referring to following noun. One would rather have expected objective *aigi*.

106. Female form of *djitc'a'u'i* "little creek, dry creek." *dji-*, verb stem "water moves, to flow, to drift." *-tc!au'i*, evidently some verb suffix or combination of two verb suffixes, but I am not clear as to analysis. Possibly *-tc!au-* is identical with *-tc!au-*, *-ts!au-* "(to be caught) in a cleft, between the teeth, claws" (e.g. *p'è-ts!au-* "plate-like object is stuck between (boards)", *dja-ts·!au-* "to have something stuck in one's teeth," *yul-ts·!au* "to grasp with claws hawk-fashion"), while *-i* may be identical with *-i-* (see note 104). If this is correct, *djitc'a'u'i* would mean "flowing off (quickly) and (disappearing as though) caught in a cleft." Formally, *djitc'a'u'i* is simply a verb-complex without tense-modal or pronominal suffixes; such bare verbal bases are frequently employed as nouns in Yana (cf. *wa'dja'iri*, note 125).

⁴ See Yana Texts, pp. 196, 197.

107. *p'alēwi-*, noun "moss;" contains collective suffix *-wi* (cf. *i'wi* "firewood," *wa'wi* "house"). *-inigui . . -'a-* verbalizing suffix "to be full of so and so," containing element *-ini-* (old incorporated noun?), *-adverbial suffix -gu-* "just," *completive -i-* used with denominative verbs and incorporated nouns ending in short vowel (cf. note 69), and verbalizing suffix *'a-* "to be so and so" (this *'a-* does not here appear as such, but contracted with *-ni-*). *'nêx*, female form of *'nêha* (*'nêxa*), contracted from verb suffix *'a-* and tense suffix *-n'ha-* (see note 103), formerly *-ni-ha-*; contraction parallel to that of *'a-n'i-* to *-nt'ê'a* (see note 97). Many cases of N. and C. Yana *h* go back to *x* (always preserved as such in Yahi); this older *x* is often preserved in N. Yana as variant of *h*, particularly as final, rarely in C. Yana, which in general is rather softer than either N. Yana or Yahi.

108. *xa'*, female form of *xa'-na*, *ha'-na* "water."

109. *da-*, primary verb stem used in adjective-verbs of appearance (e.g. *da-k'ü-sa-* "to be rough," *da-raps·i-s·a-* "to be red"), possibly connected with *da-* "to look" (e.g. *da-lil-* "to look behind," *da-rt'dja-* "to look up into the air"). *-ts!gai-*, secondary stem "to be green" (old incorporated noun in *-i-* from obsolete stem **ts!aga-* or **ts!iga-?*). *-sa-*, local verb suffix "off, away," common in adjective-verbs of appearance. *-n'h*, connected form of *-n'ha-*, see note 103.

110. Female form of *p'alēwi*, note 107.

111. Properly *wairu*, female form of *wairu*, temporal adverb "now." Probably based on old Hokan demonstrative stem **wa-*, **wai-* "this;" *-ru*, perhaps old postposition "in, at" (Hokan *-du?).

112. *'a-*, see note 104. *-djam-* (*-djam-* after heavy syllables), local verb suffix "to the north;" ordinarily *(')djav-* in N. Yana, but old *-m-* preserved because of following nasal. *-n'ha-ndj*, see note 104.

113. Female form of *t'ya* "trail."

114. *wā-*, verb stem "to stand;" cf. note 49. *-k!-*, shortened form of *-k!i-*, see note 49. *-waldi-*, see note 81. *-n'ha-ndj*, as in note 104.

115. Local noun, formed from *i-* (cf. notes 30, 102) and *-mal'li-* (final female form *-mal'lī*), local verb suffix "outside but near the house" (e.g. *mō-mal'li-* "to eat outside near the house").

116. *'i-*, verb stem "one person goes, moves." *-wul-*, local verb suffix "into the house;" cf. note 30. *-'*, imperative, female form.

117. *t'i-*, shortened from *t'i-* "to say" (see note 40) because in closed syllable. *-m-*, unvoiced from *-m-* because of following voiceless nasal; *-m-*, indirective suffix "to" used in "static" or passive forms, preserved before nasal instead of N. Yana normal *-p-* (e.g. *t'i'psiwandja* "he says to me"); apparently used only with *t'i-*, probably reduced from *-ma-*, *-mā-* (see note 87). *-n'ha-*, as in note 103. *-wa-ntc-*, female form of *-wa-ndja*, pronominal element "he . . me," more properly analyzable into *-wa-*, passive, and *-ndja* "I."

118. *aī-, ai-*, verb stem "to be gray-haired" (e.g. *a'imauyā* "gray-haired person"). *-sirak!ai-* (*-sirāk!ai-* after light syllables) "to be white all over head" (e.g. *ba-sirāk!ai-gu-* "one person is white all over his head"), also locally "all over one's head" (e.g. *dit-sirak!ai-* "to rub one's head-hair palm down"); probably contains verb suffix *-k!ai-* "one, alone, in one piece." *-mau*, participial suffix.

119. Female form of *t'si* "man."

120. *t'ü-*, verb stem "to do" (cf. note 64). *-wini-gu-*, verb suffix "also, too," containing element *-gu-* "just." *-n'h*, as in note 109.

121. N. Yana female form of C. Yana *ma'ri'mi*.

122. Form of denominative verb *lulmai-* . . *'a-* "to be blind," derived from *lu'lmai-na* "blind man." *-yai-*, verb suffix "female" (cf. *dī-dji-wil-lau-tc'u-yai-* "woman looks cross-eyed"), incorporated form in *-i-* of nominal suffixed element

-ya "female" (e.g. *k!ū'wi-ya* "medicine-woman" from *k!ū'wi* "medicine-man"); verbs referring to bodily defects of women seem regularly to suffix *-yai-*, *-wilmi-*, *-wilmū-*, verb suffix "on one side, 'half'" (e.g. *bul-wilmi-* "three are on one side," *djū-wilmū-* "one tree grows apart"), compounded of *-wil-* "across" (see note 104) and *-mi-*, *-mū-* "apart, to a side" (occurs only compounded with other elements, e.g. *u'-ma-mū-* "seven," literally "two-together-aside," i.e. "two added to five;" *-wal-mi-* "in hiding, in the woods"). *-n̄ex*, as in note 107.

123. *djūdjā*, properly *djidjā*, "static" form of *djē-dja-*, verb "to offer a seat" (when followed by indirective suffix). It is difficult to assign *djēdja-* its primary meaning (cf. further *djēdja-wagal-ts·i'l-* "to push a thing through in the center," *djēdja-ts!gil-* "to put an object in the creek," *djēc'-p'a-idi-* from *djēdja-p'a-idi-* "to open a door"); presumably *djēdja-* belongs to the class of verbs in *-dja-* that indicate handling some particular class of object (cf. *bōdja-* "to handle a hard, round object," *p'ēdja-* "to handle a flat thing," *dēdja-* "to handle a load of wood," *ēdja-* "to handle acorn mush"). *-ma-*, indirective "to" with first or second personal object (*djēdja-wau-* "to offer him a seat"); cf. notes 87, 117. *-n̄ha-wa-ndj*, as in note 117.

124. Feminine form of *dā'rik!u* "ice." Nominal derivative in *-k!u* of verb *dā-ri-* "to freeze" (intr.); certain verbs in *-ri-*, *-di-* may be nominalized by means of *-k!u* (e.g. *bar'ē-k!u* "rain" from *bar'ē-si* "it rains"). *dāri-* probably consists of *dā-* "water lies" (cf. *dā-ha* "river," *dā-lili-ba-sa-* "ground is all covered with ice," causative *dō-gidi'-a-* "to put water on the fire") and *-ri-* "down."

125. *wa-*, verb stem "to sit" (cf. note 49). *-djairi*, female form of *-djairi*, local verb suffix "on top of, resting on" (cf. *ne-djairi-* "to put one's feet on," *ma-djairi-* "to climb on top of"); evidently contains *-ri-* "down," while *-djai-* is perhaps related to *-dja-*, secondary verb stem "to rest" (e.g. *mō-dja-* "to rest and eat," *yū-dja'-a-* "to rest and make a campfire"). Verbal base used as noun; cf. note 106. Properly, *dā'rik!u* and *wa'dja'ir̄i* should be combined as *dā'rik!uwa'djairi*, compound noun "ice-chair;" they were separated, perhaps, merely because of slowness of dictation.

126. *minit-*, C. Yana *minin-*, verb "to look." *-du-*, verb suffix "back, returning" (cf. note 38). *-wul-* "in the house" (cf. note 116). *-s·a-* "off, away." *-ptcl'i-*, C. Yana *-mtcl'i-* (after heavy syllables *-mtcl'i-* in both dialects), verb suffix "together, with one another." Literally, "to look-back- in the house-off-one another," i.e. "to be looking inside back and forth, from one thing to another." *-n̄hantc'*, see note 103.

127. *dārik!u-*, see note 124. *-ini-qu-i-* as in note 127. *-n̄ex*, as in note 127.

128. *djax-*, more commonly *dja'-*, verb stem "to hang" (intr.) (cf. *dja-du-* "to be hanging down"). *-wuldi-*, *-uldi-*, verb suffix "down from a point above" (e.g. *dju'-uldi-* "wind blows down from the mountain," *da'-uldi-* "to jump down"); evidently contains *-di-*, *-ri-* "down" (cf. notes 23, 24, 81, 124, 125). *-nex*, female pause form of *-n̄ha* (see note 103), in which old *i*-vowel of *-ni-* reappears; contrast connected form *-n̄h*, e.g. note 109. *i* is sometimes lowered to *e* before *x*, *u* to *o*; these *e* and *o* vowels are purely secondary developments and have nothing to do with primary *e* and *o*, shortened from *ē* and *ō*.

129. *mō-*, verb stem "to eat." *-bitdja-*, C. Yana *-bindja-*, verb suffix "to be ready to, to be about to" (cf. *bāwisabitdja-* "to be nearly night"). *-s-*, female form of *-si*, third person present indicative.

130. *t'ū-* "to say." *-nex*, as in note 128.

131. *'ēba-*, verb "to pull," consisting probably of primary stem *'ē-* "to do with the hands" and secondary stem *-ba-*, *-bā-* after light syllables (precise meaning unknown; cf. *djō-ba-* "to put ashes aside from over a fire;" *p'ō-ba-wagal-* "to blow a hole through something"). *-dja-*, verb suffix frequently used in verbs of movement

(cf. note 123), probably here indicating movement of subject while engaged in pulling (cf. 'ēlau-dja "to walk singing," ne'-dja "to move along"). -s, as in note 129.

132. Objective form of *ai* "he, it."
 133. Borrowed from English *bell*.
 134. Variant forms. Voiceless r and aspirated *t'* with preceding *r*-glide often interchange in N. Yana.

135. *wa-*, verb stem "to sit" (cf. note 125). *-mari-* (after light syllables), *-mari-* (after heavy syllables), local verb suffix "down in a hollow, down into a basket or seat" (cf. note 39; C. Yana always has *mari-*); evidently contains-*ri-*, *-ri-* "down." *-si-*, present or future tense suffix (second person subjective forms are identical in present and future). *-(')nu*, female form of *-(')nuna*, second person singular subjective pronominal element. A glottal stop, of phonetic rather than etymological origin, is regularly inserted between a tense suffix (or verbal base) and a pronominal suffix in *-ni-*, *-nu-* (e.g. *-si-'nigi* "we shall . . . ,") *-t'i-'numa* "it is said that you . . . ,"*bé-'nidja* "it is I who"), but not if *-ni-* is contracted to *-n-* (e.g. *-si-ndja*, *-wara-ndja*). This glottal hiatus seems to indicate that the pronominal suffixes as a class have grown from the status of mere enclitics or independent pronominal particles. The old Hokan system of prefixed pronominal elements, preserved in Chimariko, Shasta-Achomawi, Karok, Yuman, Salinan, Chumash, and Washo, has disappeared in Yana.

136. *'i-bā-*, *i-bā-*, passive form of *'e-ba-*; see note 131. *-k!ap-*, C. Yana *-k!am-*, verb suffix "towards self, hither" (cf. *auvi-k!ap-* "to take," *p'ō-ba-du-k!ap-* "to breathe in air," *mo'-k!ap-du-* "to go to fetch one"). *-si-wa-*, future passive (cf. notes 135 and 117). *-nu*, as in note 135.

137. *wa-mari-*, cf. note 135. *-n'ha-ndj*, cf. notes 103, 104.
 138. *'eba-*, see note 131. *-k!ap-*, as in note 136. *-'atdi-*, C. Yana *-'andi-*, cf. notes 25, 46. *-'nex*, as in note 128.

139. *wa-* "to sit" (cf. notes 125, 135). *-k!unā-*, secondary verb stem, cf. note 81. *-n'h*, as in note 109.

140. Connected form of *k!ūwi*, female form of *k!ū'wi* "medicine-man."
 141. Female form of *aigidja*, adverb "here, there." Composed of pronoun *ai*, objective *gi*, and adverbial *-dja* parallel to demonstrative *-dje('e)* of *aidje('e)* "this one, that one." Presumably *-dja* is composed of demonstrative stem **-dj(i)*, **-dje-* (cf. note 2) and old local postposition **-a* "at."

142. *gayā-* "to talk;" cf. note 41. *-'atdi-'nex*, as in note 138.
 143. Compound noun, consisting of verbal base *citdjut'*- and *k!ai*, feminine form of *k!a'ina* "rock, stone." *cit-djut'*- seems to occur only compounded with *k!ai*; other examples of *cit-*, *s·it-* are *s·it-p'a'l-k!ai* "flat stone," *s·it-p'ala'-k!ai* "flat rocks." *-djut'*-, suffixed element of unknown significance. What kind of rock is indicated by *cit-dju'l-k!ai* is not clear. This compound noun is itself compounded with *k!ūw⁽ⁱ⁾* "medicine-man."

144. Denominative verb in *-a-* (cf. notes 107, 122, 127) from *yō'lai-yau-* "white down worn on head." *yō'lai-yau* is nominal derivative *in-yau* (cf. *mō-yau-* "food" from *mō-* "to eat"), which ordinarily makes abstract nouns. *yō'lai-* evidently consists of primary verb stem *yō-* and suffixed verbal element *-lai-*, neither of which I can define separately; *-lai-* possibly related to *-llai-* of *p'ullai-*, *dullai-* "to smear pitch on." *-'nex*, as in note 107.

145. *ai-cirak'ai-*, as in note 118 (*s* and *c* frequently interchange in Yana). *-'nex*, as in note 128.

146. *ai* "he;" *k'*, third person possessive "his." Presumably for objective *aik⁽ⁱ⁾* "(to) his" (cf. note 36).

147. Properly *co'liyau*^c. Compound noun consisting of *co'liyau* "closing (one's eye), lid" and *tc'u* "eye" (absolute male form *tc'u-na*; monosyllabic short-vowel stems in -na lose this suffix in composition). Note that qualifying element follows: "lid (of) eye," not "eye-lid." This type of composition is confined to such nouns as indicate a part of something else (e.g. a body-part); if the first noun ends in a short vowel, C. Yana adds -m-, N. Yana -p- (e.g. C. Yana *ima'-m-ba* "liver of deer," N. Yana *galu'-p-i* "arm of tree, branch"). *co'li-yau* contains nominalizing -yau- (cf. note 144 for another concrete use of this verbal abstract element). *co'li*-, cf. *co'li-sa*- "to close one's eyes"; *co'*, probably active form of *ca'* "to sleep" (e.g. *ca'-du-lul'ai*- "to sleep in the shade"), infrequent parallel to normal *s·ams·(i)*- "to sleep;" -li-, secondary verb stem "to cover" (e.g. *ba'li'-wa* "roof," *dil'-li*- "to put one's hand over something," *mullap/a'-li'-a*- "not to give one good clothes," lit. "to cause one to be badly covered").

148. *k'lunu*, *k'uni*, conjunctive stem "and," treated as verb (like *a-* "if," *k'u-* "not," *bir-i-* "where?" and other adverbial and conjunctive stems). -n'hantc^c, see note 103.

149. Properly *wa'yū*, infinitive in -, complementary to preceding verb, "and I was." *wa'yū* "to be afraid" (sing.) contains *wa-* "to sit" (cf. note 125) and suffixed element -yū- (-yu- after heavy syllables) "to fear" (cf. *ni'-yū* "to be a little afraid," *yai'-yu* "several are afraid" from *yai-* "several sit").

150. *wa-* "to sit" (sing.). - *waldi*, see note 81. - *tdi*, C. Yana *-ndi*, see note 25. -n'ha-ndj, as in note 104.

151. Better *aidji*, consisting of *ai* "he, it" and *dji*, article used with first personal possessive (cf. note 60).

152. For *mō'yau'nitc* (cf. note 135). *mō'yau*, gerund of *mō-* "to eat," indicating purpose or attendant circumstance. -nitc^c, female form of *-nidja* "I, my."

III. ANALYSIS OF A YAHİ TEXT

A STORY OF LIZARD

'i'ri' ¹⁵³	'e'bil' ¹⁵⁴	k' ¹⁵⁵	i'ri'maun ^a ¹⁵⁶	k'u'lil' ¹⁵⁷
He made arrows	he was engaged in	his	arrow-making.	He desired to turn (back).
niwi'lđji' ¹⁵⁸	wi'sdu' ¹⁵⁹	gi ¹⁶⁰	iwi'lte' ⁱ ¹⁶¹	nilô'p.dđi' ¹⁶²
He went west across a stream	he went to gather pine-nuts	at	west across a stream,	he went westward up a mountain.
domdjawa'lđi' ¹⁶³	k'	di't'ell ^a ¹⁶⁴	ô'k!audubalgu' ¹⁶⁵	gi
He put down on the ground	his	quiver.	He just cut out and pulled up	at
wê'yump' ^a ¹⁶⁶	dô'wayalte'cidibl' ¹⁶⁷	wê'yump' ^a	bô'tlan' ¹⁶⁸	He pounded out (nuts) with a rock
tc' ¹⁶⁹	wi'ssi ¹⁷⁰	dju'sp.dja' ¹⁷¹	djo'st'al! ⁱ ¹⁷²	dje'wô' ¹⁷³ tc'
the one gathering	pine-nuts.	He was getting	he got out nuts from (cones).	And then he
yo'nbal' ⁱ ¹⁷⁴	dje'duwô' ¹⁷⁵	k'	ba'n ^u ¹⁷⁶	
took up (nuts)	he took up again	his storage basket.		
busdi'm' ¹⁷⁷	tc'	yâ''wi ¹⁷⁸	dje'duwô'	k'
They shouted their war-whoops	the	Yâ'wi.	He took up again	di't'ell ^a
basdi' ¹⁷⁹	tc'	yâ''wi	e't'yunduram' ¹⁸⁰	g ⁱ
They whooped	the	Yâ'wi.	He pulled out of his quiver	ma'n ⁱ ¹⁸¹
dju'k!alsi-t'i ¹⁸²	mi'badjâsi-t'i ¹⁸³	"it is storming,"	ne'p'dahi ¹⁸⁴	to bow.
"Wind is blowing," he said,	he said.		He was rushed by (by them).	dje'dja'andi' ¹⁸⁵
				Now he shot off (his arrows),

bo'p'sdak!auram' ¹⁸⁶ he hit them straight	gi at	tc'u'n ^a ¹⁸⁷ face.	ne'durihau' ¹⁸⁸ He went back east down hill;	mô'tssdjamb ¹⁸⁹ he shot off arrows to the north,
mô'djat'p'a' ¹⁹⁰ he shot off arrows to the south,	mô'djahau' ¹⁹¹ he shot off arrows to the east,	bo'p'sdak!auram' ['] he hit them straight	gi a	tc'u'n ^a face.
ne'duts!g ^l il' ¹⁹² He went back to the water	gi at	dâ'x ^a ¹⁹³ river,	ne'duwî'lau' ¹⁹⁴ he went back east over the water,	ni'tc'il'a'u' ¹⁹⁵ he came out of the water
gi dâ'x ^a at river.	mênama'idjasa' ¹⁹⁶ They all scattered out of sight	tc' the	yâ''wi	ne't'a'u'andi' ¹⁹⁷ Now he went ahead on the road,
ni'du'an' ¹⁹⁸ he came back home	tc' he	ba''sik' ¹⁹⁹ when it was night.	'o'ijdjat'sa' ²⁰⁰ He put them away again	k' his
xa'a'la'isgink' ²⁰¹ Early in the morning	masduwa'l ^{dis} ²⁰² he smooths down on the ground canes for arrow-shafts,	i'ri'	ba'n ^u storage baskets.	
'ê'bil' he was engaged in	k' i'ri'maun ^a his arrow-making.	dé'duk!au' ²⁰⁴ He finished.	musmiyé' ²⁰³ he smoothed arrow- shafts by rubbing,	
dé'duk!au' He finished,	de'tc'wun ²⁰⁶ he socketed the foreshafts into (cane shafts).	me'nwaldis ²⁰⁷ He turns them on the ground,	me'ntlap'wal' ²⁰⁵ He fitted cane shafts tight on around foreshafts.	
'ê'bil'andi' ²⁰⁹ Now he was engaged	i'yu'ik'i ²¹⁰ when it was day.	met'dja'ri' ²¹¹ He feathered the arrows,	dé'duk!au' he finished.	djewó' And then
tc' dê'wun ²¹² he trimmed the feathers,	dé'duk!au' he finished.	p'ô'wunmi' ²¹³ He blackened the feathers by charring,	we'p'dawal' ²¹⁴ he bound sinew around junctions of shaft and foreshaft.	
dé'duk!au' He finished.	busdi'mdi'andi' ²¹⁵ Now he smoothed foreshafts with scouring rush.	wô'djaduk!am' ²¹⁶ He put (his arrows) aside	ba'sik' ²¹⁹ when it was night.	
k'u _s ²¹⁷ "Not are	dji'nau'inam ^{b-a-t-i} ²¹⁸ be many to eat, it would seem," he said,	wu'n ^a "pine-nuts,"	gi'p'auya <u>uwa</u> ²¹⁹ he having people come to him for food.	
yô'ma ²²⁰ Gave to eat	tc' ma'ri'm ⁱ ²²¹ the woman.	k'û's ²²² "Not are the my	ba'iwak t-i ²²⁴ sticks for fore- shafts," he said.	
bê'widja ²²⁵ "Let it be, pray,	gi p'â't!elwalla-t <i>j</i> ²²⁶ to Long-tailed Lizard," he said.	ba'iwak lik! ²²⁷ arâ'ai'-t <i>i</i> ²²⁷ "Do you go ahead to get	dje'wô' And then sticks for foreshafts!" he said.	
tc' ba'iwak li ²²⁸ the one to get sticks for foreshafts	ne'sa'andi' ²²⁹ now went off.			

TRANSLATION

(Lizard) made arrows, was busy with his arrow-making. He (put aside his work and) made up his mind to go off in another direction. He went across the river to the west,⁵ went to gather pine-nuts on the western side of the river. He went westward up into the hilly country. He put his quiver down on the ground. He (had) merely cut out and pulled up the horns of a deer (for a quiver) and was carrying them about riding his shoulder.⁶ He, who was gathering pine-nuts, pounded them out with a stone. He was getting out the

⁵ The Sacramento river is meant.

⁶ It seems that Lizard's quiver was made of deerskin stretched on a frame of two deer horns that he had cut loose from each other at the base.

nuts, got them out of the cones.⁷ And then he took up the nuts and, filling them in, he took up again his storage basket.⁸

The Yā'wi⁹ yelled their war-whoops. (Lizard) again took up his quiver. The Yā'wi whooped.¹⁰ He pulled a bow out of his quiver. "There's a wind blowing," he said. "It is storming," he said.¹¹ They rushed past him. Now he shot off his arrows and hit them straight in their faces. He returned down hill to the east. He shot off arrows to the north, he shot to the south, he shot to the east—he hit them straight in the face. He returned to the river, went back eastward over the water, and emerged from the river. The Yā'wi all scattered out of sight. Then (Lizard) went ahead on the road and came back home at nightfall. He put away his storage baskets.

Early in the morning he smooths down cane arrow-shafts. He was making arrows. He smoothed his arrow-shafts by rubbing, busied with his arrow-making. He finished. He fitted the cane shafts tight on around the foreshafts. He finished this, he socketed the foreshafts well in. He turns his arrows as he holds them down to the ground; he painted bands—(red and green)—at their butts. Now he occupied himself in this manner all day long. He feathered the arrows—finished. And then he trimmed the vanes of the feathers—finished. He blackened the feathers, charring them (with the burnt point of a stick). He wrapped sinew around the juncture of shaft and foreshaft—finished. Then he smoothed his foreshafts with scouring rush.¹² He put his arrows aside when it was night.

⁷ He first put the pine-cones over a fire to try out the pitch. When there was no more pitch left in them, he pounded out the nuts.

⁸ The *bō'nu*, an openwork, flexible receptacle for roots and nuts, made of vegetable fibres.

⁹ This is the term now used by the Northern and Central Yana for the Wintun. In a Central Yana myth obtained from Sam Batwi (see *Yana Texts*, p. 71) the Yā'wi are legendary, evil-minded people dwelling on the western banks of the Sacramento. Among their chiefs were Fish Hawk, Crane, Heron, Salmon Trout, and Big Acorn Pestle. According to Ishi the Yā'wi were bad folk west of the Sacramento who were in the habit of killing people. The Yā'wi listed by him included *dā'si*, Salmon; *bari'k'u*, Rain; *ra'aldāhiya*, (?); *tc' inwarek'k'u*, a little snake (as regards its etymology, this word is merely a diminutivized form of Northern Yana *tc' ilwarek'u*, "Big Rain;" see *Yana Texts*, p. 167, 1.10); *daha'uk!āsi*, (?); *'ā'saik!alāla*, a fish; *xap'yu'muk'u*, a little black animal living in the water; and *wawi'lđjuwa* (probably identical with N. and C. Yana *wawi'lđjuwa* "otter").

¹⁰ The sound they made was a prolonged 'ā.

¹¹ Apparently the Yā'wi were shooting off arrows at Lizard from all directions in the form of rain. Lizard pretended that the attack of the Yā'wi was merely a strong wind blowing.

¹² Yahi *mi'lts'limyauna*.

"There are not many pine-nuts to eat, it would seem," said (Lizard), as (his people) came and stood near, waiting for food.¹³ The woman¹⁴ gave them all to eat. "I have no stems¹⁵ for the making of foreshafts," he said. "Let it be Long-tailed Lizard,¹⁶ pray," he said, ("who is to go for some"). "Do go and get stems for foreshafts!" said he. And then the one (spoken to by Lizard) went off to find a bush for the arrow foreshafts.

GRAMMATICAL NOTES

153. *'iri'-*, verb "to make arrows." *'-*, combines *'-* of stem and *'*, shortened from *'-i*, narrative infinitive; see notes 11, 20, 23, 51, 79. Ishi's narrative forms are regularly abbreviated, all final short vowels becoming unvoiced or disappearing entirely.

154. *'e-*, primary verb stem of instrumental force "to do with one's hands, fingers;" cf. N. Yana *'e-wagal-* "to fold one's arms," *e-'gat-* "to break with the hand," also note 131. *-bil-*, verb suffix "about, moving here and there;" cf. note 90. *'-*, narrative infinitive.

155. See note 4. Here equivalent to objective possessive *k'i*, see note 36.

156. Unvoiced form of *'iri'mauna*. *'iri'-*, as in note 153. *-mau-*, participia I suffix; cf. notes 42, 118. *-na*, absolute noun suffix. *'iri'mauna* "(arrows) being made" is practically used as abstract noun: "arrow-making."

157. Precise meaning not clear, though etymological analysis seems certain enough. *k'ullil-*, assimilated from *k'un-lil-*. *k'un-*, primary verb stem "to like, to desire, to want;" cf. C. Yana *k'un-miyau-* "to want-food, to be hungry," N. Yana *k'ut-sa-* "to want-off, to desire to go away." *-lil-*, verb suffix "turning;" cf. N. Yana *da-lil-* "to look back," *wa-lil-walldi-* "to turn clear around." *'-*, narrative infinitive.

158. *ni-*, see note 38. *-wildji-*, verb suffix "across (the river) to the west," compounded of *-wil-* (cf. note 104) and *-p.dji-* (N. and C. Yana *-m'dji-*) "to the west;" *-wildji-* is found in this form (not *-wilm'dji-*) also in N. and C. Yana. *'-*, narrative infinitive.

159. *wis-*, verb "to gather pine-nuts," N. and C. Yana *wi'-*. Yahi keeps syllabically final *-s-* and *-x-*, which fall together in N. and C. Yana to *-x-*, generally weakened to *'-*; cf. further Yahi *e-sgan-* "to break": N., C. Yana *e-'gan-*, *e-'gat-*. *-du-* "to go to (do) . . ." (post-consonantal form; cf. note 69). *'-*, narrative infinitive.

160. Objective particle, used locally.

161. Full form: *iwi'ldji*. Local noun formed from element *i-* (see notes 30, 102, 115). *-wildji*, as in note 158.

¹³ As chief, he was naturally expected to share with his people the stock of pine-nuts he had brought home with him from the western country. I incline to believe that Lizard's words are to be taken in a sense opposed to their literal meaning. He affects a chief's self-disparagement. The true implication seems to be that there was plenty for all. Rhetorical negatives of this type are quite common in Yana; cf. *Yana Texts*, p. 111, 1.5, and note 166.

¹⁴ Lizard's wife.

¹⁵ The term *ba'iwak'i* seems to indicate some bush or tree growing near the water. The stems of small ones were used for the making of the wooden foreshafts that fitted into the arrow-shafts of cane. Apparently the word indicates both the tree and the stem used in arrow-making.

¹⁶ Another species of lizard than the hero himself (*k'a'lte'auna*), who is named later on in the narrative. This "Long-tailed Lizard" (*p'ā't'clwalla*) was Lizard's little nephew.

162. *ni-*, as in note 158. *-lōp.dji-*, local verb suffix "westwards up-hill," compounded of *-lau-* "from an enclosed space into the open" (cf. note 44) and *-p.dji-* "to the west" (cf. note 158). In N. and C. Yana *-lau-* appears as *-lō-* before most of the 8 suffixes indicating cardinal points: N. Yana *-lō- = -lau-hau-* "up hill to the east;" *-lōm'dji- = -lau-m'dji-* "up hill to the west;" *-lō-djap-* "up hill to the north;" *-lōt'p'a-* "up hill to the south;" *-lō-t'k'i-* "up hill from the east;" *-lōdju-* = *-lau-haudju-* "up hill from the west;" but *-lau-wadju-* "up hill from the south." Sound-groups of the type *-p.dji-* are peculiar to Yahi. Wherever N. and C. Yana have *-m'-* (or *-m-* + nasalized breath) + intermediate stop (e.g. *-m'gu-, -m'dja-, -m'dji-*), Yahi has "pause *-p*" (unaspirated and clearly surd, followed by a perceptible pause yet without the acoustic effect of a geminated *p* as in N. Yana *apbi-*) + intermediate stop. These groups were sometimes heard as *p+' + intermediate surd*, but merely erroneously so. Yahi *-p.dji-* (N.-C. Yana *-m'dji-*) differs both acoustically and etymologically from such groups as N. Yana *'ibā'k!apdja'* (C. Yana *-k!amdjā*, Yahi *-k!amdjī*) on the one hand and such N.-C.-Yahi groups as *-t'ap'-dja-* on the other. Observe that the *-p-* of Yahi *-p.dji-* does not shorten a preceding long vowel, while the two latter types of *p*-sounds can occur only in a closed syllable with a short vowel. In other words, *-p-* acts as a reduced but distinct syllable of its own, as does N.-C. Yana *-m'-*; this is explained by the fact that such elements as *-m'dja-*, *-p.dja-* can indeed be shown to go back to elements of type *-madja-*. — *-'*, narrative infinitive.

163. *dom-*, primary verb stem "to handle a bulky object like a child or quiver;" see note 89. *-dja-*, verb suffix used in many verbs of "handling, putting, throwing" with active vocalism of stem; e.g. Yahi *bā-* "a stone lies;" *bō-dja-* "to handle a stone," *dā-* "water lies;" *dō-dja-* . . . *-a-* "to put water (not contained in a vessel);"
dam- "a quiver, deer lies;" *dom-dja-*. *-waldi-*, see notes 81, 114, 150. *-'*, narrative infinitive.

164. N. and C. Yana *dī't'il-la.* *dī-t'el-*, noun "quiver," probably nominalized from verb *dē-*, static *dī-* "to shear, to cut off" (cf. N. Yana *dē-k!atdi-* "to cut off the hair so as to leave the head bald," *dē-ya-* "to shear off hair," *dē-tc!atdi-* "to peel off bark," *dē-t'il-k!ai-* "to cut hair evenly around the head"); *-t'el-*, cf. N. Yana *-t'il-*, secondary verb stem "in a slice" (e.g. N. Yana *djō-t'il-*, "to cut off a slice of bread"). *-la*, assimilated from *-na* to preceding *l*, absolute noun suffix. *dī't'ella* thus probably means, to begin with, "a flayed strip" (cf. further N. Yana *bat'i'lmi* "blanket of deer-hides," *dīt'i'ldimaua* "black-bear hide").

165. Full form: *'ō'k!audubalgu'a.* *'ō- . . . -a-*, causative form: "to handle a long object" (e.g. Yahi *'ō-sa-'a-* "to throw away a stick"); cf. N. Yana *'ō-*, primary verb stem of instrumental force "to do with a long object, with a stick" (e.g. *'ō-batdi-sa-* "to kill with a stick," *'ō-balla-sa-* "to hit with a club"). The deer horn is the "long object" referred to. *-k!au-*, secondary verb stem "to cut, to break off;" e.g. N. Yana *djō-k!au-ba-dibil-* "to cut up food into little pieces," *ne'-k!au-* "to step on and break in two," *bul-k!au-* "three objects snap, break in two." *-du-* "again" (cf. notes 38, 81, 126); in Yahi *-dū-* does not occur (cf. note 198, where N. and C. Yana would have *ni-dū'-*). *-bal-* "up from a position of rest" (cf. note 54). *-gu-* "merely, just" (cf. notes 44, 70, 79, 83, 85, 107, 120). *-a*, here elided, is contracted from causative *-a-* and narrative infinitive *-i*; see notes 21, 35. —The idea of "again" is not altogether obvious in the English rendering; it is probably implied in the idea of cutting out first one horn, then the other.

166. Abbreviated from *wē'yumba*. Compound noun formed from *wē'yu* "horn," connective *-m-*, and *ba-* "deer;" "horn of deer;" cf. note 147 for type of compound. Another Yahi example is *bū'ni-m-sawa* "feather of arrow."

167. *dōwa-*, verb "to carry (a quiver) on one's shoulder," static form *dawā-* (other Yahi forms in this legend are *dawā'-k!-tc'i-sdja'* "it rode resting up on his shoulder," *dawā'-k!-tc'i-dibil-hi* "it was carried about resting on his shoulder"); probably compounded of *dō-* (*da-*) and *-wa-* (*-wā-* after light syllables), local verb suffix "over" (cf. N. Yana *dō-l'i-lau-* "to take off a hat"). *-wa-* (*-wā-* after light syllables), local verb suffix "over" (cf. N. Yana *dīn-wa-* "water covers all," *ne'-i-wa-gil-* "to step over a sleeping person"); *dō-wa-* thus probably means "to carry a hat-like object over one's person." *-yal-*, verb suffix apparently indicating "between two uprights" (cf. N. Yana *ts!al'-yal-la* "seat between two upright sticks for a woman in confinement;" possibly diminutivized to *-yan-*, N. Yana *-yat-*, in *a-yat-p!a-* "to rock oneself"). *-tc'i-*, secondary verb stem apparently meaning "to shake up and down" (cf. N. Yana *p'ē-tck'i-* "to shake a basket or sack so as to let the water in which it has been washed trickle down"); *-yal-tc'i-* apparently refers to the bobbing movement of the quiver secured at either end by a deer horn. *-dibil-*, see notes 21, 51, 70, 79. *-*, narrative infinitive.

168. *bō-*, instrumental verb stem "to hit with a stone" (e.g. Yahi *bō-si-ndji* "I hit him with a stone," N. Yana *bō-k'u-* "to pound up fine with a stone"). *-t'an-*, secondary verb stem "to crack, to mash" (cf. N. Yana *-t!at-* in *lui-t!at-* "to crack open with a rock," *yul-t!at-* "to mash up with the palm"). *-*, narrative infinitive.

169. *tc'*, article "the" or general third personal pronoun; cf. note 2. It is used constantly in Yahi, but is nearly always compounded with *ai* as *aitc'* in N. and C. Yana. Ishi never used *aitc'* as article, only as contracted form of *aidja* "here, there," in which sense it also occurs in N. and C. Yana, or of *aidji* "this, that" (N. C. Yana *aidje*).

170. *wis-*, see note 159. *-si*, agentive suffix (cf. *dā'-si* "salmon," literally "jumper"). Agentive constructions like *tc' wi'ss!* seem not infrequently to imply purpose of the preceding verb: "he pounded with a rock in order to get pine-nuts."

171. *djos-*, static form of verb stem *djos-* (see note 172) "to beat out pine-nuts from pine-cones." N. and C. Yana would have *djo'-*, *dju'-*, but I have not found this stem. — *-p.dja-*, verb suffix indicating durative activity without reference to verbal object (cf. English "to spin, to be a-spinning" as contrasted with "to spin yarn"), hence demanding static vocalism in stem; for phonetic form, see note 162. N. Yana *-m'dja-* is used in two senses: as durative (e.g. *ap'dji'm'djani'wara* "they used to be killed"), though not necessarily with static vocalism of stem, and as element indicating "to come to(do) . . ." (correlative of *-du-*, *-ru-*); presumably these two uses of *-m'dja-* are unrelated to each other. Yahi duratives in *-p.dja-* are distinctive not only in that a logically active verb is static in form but that with it the verb stem, transitive or intransitive, is used in its simplest radical form, with elimination of all derivative suffixes; e.g. *djos-p.dja-: djos-t'al-* (see note 172), *bā-p.dja-* "to be pounding with a stone"; *bō-t'an-* (see note 168), *i-p.dja-* "to be singing"; *'ē-lau-* "to sing," *dā-p.dja-* "to be flaking;" *dō-sit'-* "to flake obsidian points," *mas-p.dja-* "to be rubbing (a foreshaft)": *mus-miyē-* "to smooth an arrow-foreshaft," *wa-p.dja-* "to be sitting;" N. Yana *wa-k'un'ā-* "to sit" (see note 139). *- -*, narrative infinitive.

172. *djos-*, active verb stem "to beat out nuts from cones" (cf. note 171). *-t'al-*, secondary verb stem indicating "undoing, destruction, separation" (cf. N. Yana *bui-t'al-* "to kick a hole through something," *djū-t'al-* "much water leaks through," *bō-t'al-* "to crack with a rock"). *-*, narrative infinitive.

173. Verb form which has evidently become so colorless in meaning as to serve as mere connective: "and then." *dje-*, variant of *dji-* (*i* in open syllables tends to become *e* in Yahi, but this secondary *e* is not to be confounded with active *e*, *ē* that parallels static *i* or *ī*). *dji-*, primary verb stem used in many verbs of movement

difficult to classify under a common head; cf. N. Yana *dji-rap-* "blood runs out (of the nose)," *dji-k!ut-sa-* "to slink away," *dji-yut'-wuldi-* "to slip down," *dji-gabil-* "to stumble," *dji-i-mari-* "to help," *dji-wau-* "to fight" (literally "to get at somebody"). *-wō-*, contracted form of *-wou-*, *-wau-*, indirective suffix (cf. notes 41, 51, 89, 93, 103); *-wau->-wou-*, *-wō-* and *-yai->-yē-* are characteristic phonetic processes in Yahi, long close *e* and *o* not being found as primary vowels in Yana. *-'*, narrative infinitive. *dje'wo'* presumably means, to begin with, "(he) proceeded thereto," in other words "thereupon he (did so and so)."

174. *yon-*, primary verb stem for which I have no ready parallel in N. or Central Yana; its meaning may be "to gather up a heap." *-bal-*, cf. note 165. *-i*, narrative infinitive.

175. *dje-*, *-wō-*, and *-'*, as in note 173. *-du-* "again," cf. note 165; literal meaning presumably: "again (he) proceeded to." *-'* between *dje-* and *-du-* is of purely phonetic, not morphological, origin, and is not analogous to N. and C. Yana pre-consonantal *-'* (cf. note 159) <*-x-* or *-s-*. The following phonetic rule is characteristic of Yahi and never applies to N. and C. Yana: If the vowel of the first syllable of a word is etymologically short (i.e., not merely shortened from a long vowel that has come to stand in a closed syllable) and stands in an originally open syllable (i.e., in a syllable that is actually open or is followed by a consonant that closes the first syllable but functions as an independent morphological element and has lost a vowel originally standing after it), it is followed by an aspiration, provided that the following consonant is an intermediate stop (*b*, *d*, *dj*, *g*), an aspirated stop *p'*, *t'*, *tc'*, *k'*), a voiceless spirant (*s*, *x*), or a *y* or *m*, but not if it is a glottalized consonant (of type *p!*), a glottally checked consonant (of type *p'*), an arrested consonant (of type *-p.dj-*), or a *w*, *l*, *r*, or *n*. This rule works with great regularity. Further examples are: *ba'bil*, *ni'du'an-* (see note 198), *dje'dja-* (note 185), *xa'ga*, *gi'p'au-* (note 219), *ne'i'tau-* (note 197), *ni'tc'il-* (note 195), *u'k'i-*, *ba'sa-* (note 199), *ba'xalo-*, *i'yui-* (note 210), *i'mau'ilau-*; in secondarily closed syllables: *ne'i'tu'sa-* "to go off again" (cf. N. Yana *nidū'sa*), *de'tc'wun-* (see note 126), *dja'tc'p.dja-* (but *djap.dja-*). If the short vowel is lengthened, for a morphological reason, the aspiration naturally disappears; e.g. *ba'bil-* "to run about," causative *bōbil'a-*. There are a few cases that are not covered by the rule (e.g. *ya'wadju-*, *yada'p.djagu-*), which may need to be somewhat further qualified (thus, it is likely that *-'* also appears before *w* if the preceding vowel is accented), but whatever the true formulation of the rule, it is clear that it worked with mechanical regularity. It will prove an important phonetic criterion in unraveling the phonology of Yana in its older form. That the aspiration occurs before *-d-*, for instance, but not before *-r-* (which appears as *-d-* after consonants) indicates that the Yana *-d-* which never changes to *-r-* and the Yana *-d-* that becomes *-r-* after vowels are of distinct phonetic origin.

176. Full form *bā'nu*. Disyllabic noun stem; probably identical with N. Yana *bā'nu* "plant of which twine was made."

177. I am unable to analyze *busdim-* for lack of ready comparable material; presumably it consists of primary verb stem *bu-* (cf. *ba-*, note 179) and secondary verb stem *-sdim-* (or *-sdi-+m-*; cf. note 179); possibly final *-a* has been elided (see note 179). *-'*, narrative infinitive.

178. Full form *yā'wi*. Cf. N. and C. Yana *yā'wi* "Wintun Indian;" also C. Yana *yā'wi* as mythological group (*Yana Texts*, p. 59, 1.18). *-wi* is probably collective noun suffix; cf. note 110. This leaves *yā'-* as stem.

179. *basdi-*, verb "to shout, to whoop." *ba-*, primary verb stem "to call out" (cf. N. Yana *ba-bil-mits'i-* "to call together from all over," *ba-wau-* "to ask one to come," *ba-djiba-* "to call everywhere"). *-sdi-*, secondary verb stem "to shout;" N. and C. Yana *-di-* (for *- -i*: Yahi *-s-*, cf. note 159), e.g. *ba-ts'i-di-a-* "to shout." If we may judge from this form, Yahi *basdi'* is to be understood as *basdi'(a)*.

180. '*e*'- probably contains '*e*', shortened to '*e*'- in a closed syllable; '*e*', primary verb stem "to do with one's hand" (cf. note 154), often used in verbs of "pulling" (e.g. N. Yana '*e*-*ba*- "to pull," '*e*-*yu-k'ap*- "to pull twine through"). -*t*'-, verb suffix indicating beginning of motion; cf. note 54 (C. Yana *p'i'-bal*- corresponds to N. Yana *p'i'-bal*- as does C. Yana '*e*'-*yun-dam*- "to pull an arrow out of a quiver" to Yahi '*e*-*t*-*yun-dam*-). -*yun*-, secondary verb stem "to pull out, off;" cf. further -*yut*- in N. Yana '*e*'-*yut-t'al-ts·i*- "to pull two things apart." -*du*-, see note 165. -*ram*-, local verb suffix "out of the house, out of a receptacle," cf. notes 49, 102. -', narrative infinitive.

181. Full form *ma'n'i*. Cf. note 60.

182. *dju'k'al*-, verb "wind blows;" cf. N. Yana *djuk!al*-, nominalized *djuk!a'l-la* "wind." *dju*-, primary verb stem "wind blows;" cf. N. Yana *dju-k'i-* "a wind comes blowing," *dju-uldī-* "a wind blows down from the mountain." -*k!al*-, verb suffix apparently referring to "uninterrupted movement, a clean sweep;" aside from *dju-k!al*- it has been found only compounded with other elements, e.g. -*k!al-sa*- "right through" (e.g. N. Yana *mildja-k!alsa*- "to run right through"), -*k!al-lau*- "well, completely." -', phonetic in origin, anticipating glottalized articulation of -*k!*-, short vowels in initial, open syllables when followed by glottalized consonants (of type *p!*) are generally closed by a glottal stop (this rule is parallel to that given in note 175). -*si*-, present tense (masculine form); cf. notes 39, 72, 91, 129, 131, 135. -*t'i*, quotative suffix (cf. note 1), regularly used by Ishi to mark direct discourse; it is generally equivalent to "said he." This usage is not found in N. and C. Yana, where the related verb stem *t'i* "to say" is used instead (cf. notes 40, 71).

183. *mībadjā*-, lengthened from *mībadju*-; before present suffix -*si* short vowels are regularly lengthened in Yahi, while -*a*- becomes -*au*-. *mī*-, primary verb stem "to howl, to storm" (cf. C. Yana *mī*- "to weep," N. Yana *mī-halu-dibil*- "ghosts go about wailing in the dark;" possibly also *mi*- in N. Yana *mi-k'ai*- "to be angry," *mi-k'it-di'a*- "to rage" (may be used of the mind); N. Yana *mī-gul'a*- "to be protected from the wind"). -*ba*-, verb suffix "all, completely" (cf. N. Yana *mō-ba*- "to finish eating," *ya-ba*- "to be burnt completely," *djū-ba-dja*- "leaves fall"). -*dja*-, verb suffix of movement "off, away" (cf. note 131). -*si-t'i*, as in note 182.

184. *ne*-, for *ni*- (cf. note 173), primary verb stem "one male goes; cf. note 158. -*p'da*-, verb suffix of unknown significance, conveying some such idea as that of "passing one after another" (perhaps to be understood as -*p.da*-, compounded of -*p*-, N. and C. Yana *-m'*- in *-m'gu*- "right there, near the house," and -*da*-, cf. N. and C. Yana *-da-mts·i*-, *-da-pts·i*- "moved together, towards each other;" -*m'da*-, Yahi -*p.da*-, might mean "moving one after another past one point")¹⁷; possibly, however, -*p'da*- is to be explained as in note 214. -*hi*, passive infinitive, used as narrative form; corresponds to N. and C. Yana -*t'i* (e.g. N. Yana *t'i-p-t'i* "to be told," Yahi *t'i-m-hi*).

185. *dje'dja*-, from *dji-dja*-, verb "to shoot (an arrow);;" for *e* see note 173, for -*t*'- see note 175. Yahi *dje'dja*- corresponds exactly to N. and C. Yana *dji-djā*'-; it often accents an initial short-voweled stem where they accent the following suffix and lengthen its vowel (analogous is Yahi *ne'du*- "to go back": N. and C. Yana *nidū*'-). *dji*-, primary verb stem "to shoot;" cf. N. Yana *dji-wāgal-ts·it'a*- "to shoot right in the center," active *djē*- in *djē-djap*- "to shoot a person." -*andi*-, as in note 68. -', narrative infinitive.

¹⁷ This corresponds to Ishi's explanation. As Lizard stood there, the Yā'wi rushed past him from west to east, each one shooting off his arrow as he approached. Had they all rushed by in a pack, the singular verb stem *ni*-, *ne*- could hardly have been used.

186. *bop'-*, verb stem meaning apparently "to hit with an arrow-point," probably related to *bō-* "to hit with a stone" (*ō* shortened to *o* in closed syllable; cf. note 180); cf. also C. Yana *bop'-di-* "to chip off a piece of flint." *-sda-*, verb suffix "straight on, uninterrupted," C. and N. Yana *-da-* (cf. N. Yana *ni-'da-sā-gu-* "to go straight on," *da-'da-sa-* "to jump ahead of the mark," *wa-'da-tdī-gu-* "to just sit still without moving"). *-k!au-*, secondary verb stem "to cut, to wound" (cf. note 165). *-ram-*, local suffix "out of an enclosed space" (cf. note 180); precise application here not clear, but possibly *-k!au-ram-* implies a "gouging out" of their eyes. *'-*, narrative infinitive.

187. Full form *tc'u'na*. *tc'u-*, noun stem "eye, face." *-na*, absolute noun suffix

188. *ne-*, as in note 184. *'-*, as in note 175. *-du-*, as in note 165. *-ri-*, local verb suffix "down;" cf. notes 23, 24. *-hau-* "to the east;" cf. notes 55, 104. *'-*, narrative infinitive.

189. *tmōts-*, reduced form of *mōdja-* (cf. notes 190, 191). Before *-s-* or *-x-* followed by another consonant (in N. and C. Yana, before *'-* + another consonant) a short vowel (generally *a* or *i*), if unaccented and not in the first syllable, is lost, provided the preceding consonant is a stopped consonant or a voiceless spirant (*s*, *x*) and the main accent of the word is on a syllable that precedes the affected vowel (this last condition is not altogether certain); if the consonant preceding the last vowel is an intermediate stop (*b*, *d*, *g*, *dj*), it becomes an aspirated surd (*p'*, *t'*, *k'*, *tc'*). Examples of elided vowels before *'-* + consonant in N. Yana are *mī'tc'dap'augu-* (<*mī'dja-'da-*), *mī'ltc'da-sa-* (<*mī'ldja-'da-*), *mitc'wi'l-* (<*midja-'wi'l-*), *u'ltc'di-* (<*u'ldja-'di-*), *nidū'sdagu-* (<*nidū'sa-'da-*), *k!ā'ysagai-* (<*k!ā'ysi-'gai-*), *bōtc't'i'p-* (<*bōdja-'t'i'p-*). Examples of preserved short vowel before *'-* + consonant, though unaccented and not in the first syllable, are *p'aba'gait!a'ltc'i-*, *basa'dama'isi'i*, *'itda'na'i-*, *a'uwii'nai-*, *dja'k'surū'ru'djap-*, *'adjil'ya'djap-*; here the accent follows or the preceding consonant will not allow the vowel to drop. A few forms (like *mā'u'ldi'bu-*) with preserved vowel in conditions that would ordinarily warrant its loss show that the mechanical rule is crossed by certain other factors; probably certain suffixes, like *'uldī-* "moving down," are always preserved intact. In Yahi the rule operates more extensively than in the other dialects because of the fact that the accent is frequently thrown back (cf. note 185); thus, Yahi *'a'p'tssda-* < *'a'p'djī-sda-* would be *'ap'djī'da-* in N. Yana. —— Yahi *mōts-sdjam-*, assimilated from *mōtc'-sdjam-*. *mōdja-* . . . *'a-*, causative verb "to handle a long, pointed object (like an arrow or pen)," hence "to shoot an arrow" (as designated by the following element). *mō-*, active form corresponding to static *mu-* (e.g. Yahi *mu-rul-* "long object lies"); *-dja-*, suffix used with verbs of handling a type of object (cf. note 163). *-sdjam-*, local verb suffix "to the north;" C. Yana *-djam-*, N. Yana *-djap-* (cf. note 112). *'-*, shortened from *'a-*, compounded of causative *'a-* and narrative infinitive *'i* (cf. note 165).

190. *mōdja-*, as in note 189. *'-t'p'a-*, local verb suffix "to the south;" appears in N. and C. Yana as *-t'p'a-*, *-t'p'a-*, *-rp'a-*. *'-*, narrative infinitive.

191. *mōdja-*, as in note 189. *-hau-*, as in note 188. *'-*, narrative infinitive.

192. *ne-'-du-*, as in note 188. *-ts'gil-*, local verb suffix "in, into the water" (cf. N. Yana *dā-ts'gil-* "to jump into the water," *djū-ts'gil-* "geese fly in the river," *murul-ts'gil-* "to lie asleep in the water"). *'-*, narrative infinitive.

193. Full form *dā'xa* "river," particularly "Sacramento River;" N. and C. Yana *dā'ha*. Compounded of verb stem *dā-* "water (or any fluid mass, including fire) lies, is spread out" (cf. note 127; Yahi causative *dō-* . . . *'a-* "to put, pour out water, pine-nuts," *dōdja-* . . . *'a-* "to handle fire") and noun stem *xa* "water" (absolute *xa'na*), cf. note 108. For other examples of verb-noun compounds, see notes 98, 99.

194. *ne-'-du-*, as in note 188. *-wīlau-*, as in note 104. *'-*, narrative infinitive.

195. *ni-*, as in note 158; *-t̄-*, as in note 175. *-tc'il'au-*, local verb suffix "out of the water;" N. Yana *-ts·it'lau-* (e.g. *dā-ts·it'lau-* "to jump out of the water," *lui-ts·it'lau-* "to throw a rock out of the river"). This element is probably compounded of *-tc'it-* "moving off from the camp, towards the woods, straight out into the open" (e.g. N. Yana *ni-tc'it-* "to go out hunting," *minit-tc'it-djāmi-* "to look straight north," *dji-tc'it-* "blood flows out") and *-lau-* (see note 44). *-'*, narrative infinitive.

196. This form is very obscure. It was at first interpreted to mean "they were all killed off," but "they all scattered out of sight, no trace of them was visible" is perhaps nearer correct. *mē-*, primary verb stem possibly referring to "visibility, appearance" (cf. N. Yana *mē-k!ul-* "to look down slantwise," static *mā-wil-k!ui-di-a-* "to be cross-eyed," Yahi *menin-* "to look"). *-namai-*, cf. perhaps *-nama-* in N. Yana *ts·let-nama-k!oi-a-* "there is nobody," Yahi *tc'et-namo-gwī-sa-a-* "all have disappeared," cf. further N. Yana *-nam-* in *k'ū-dē-nam'-mai-sa-* (<*dē-nam'-wai-sa-*; cf. *dēwai-* "to see") "not to be able to see any;" *-nam(i)-* may indicate "disappearance, no trace left." *-dja-*, verb suffix of movement; cf. note 183. *-sa-*, local verb suffix "off, away;" cf. notes 68, 80, 109, 126. *-'*, narrative infinitive (possibly verb base is really *mē-namai-djasa-a-*, in which case *-'* represents *-a-*+infinitive *-i*, cf. note 165).

197. *ne-t̄-*, as in note 188. *-t̄au-*, verb suffix "ahead in open country," e.g. Yahi *dji-t̄au-* "to proceed on the trail;" cf. N. Yana *-t̄au-* "flat, plain, in the midst of an expanse" (e.g. *da-t̄au-sa-* "to be flat," *t̄-t̄a'u basī'-k'i'a-* "in the middle of the night"), also *-t̄au-* (e.g. C. Yana place-name *Djēwint'a'urik!u*). *-andi-*, as in note 185. *-'*, narrative infinitive.

198. *ni-t̄-*, as in note 195. *-du-*, as in notes 188, 192. *-an-* "arriving," cf. note 38. Note accent in Yahi *ni't̄du'an-* as compared with C. Yana *nidū'an-*. *-'*, narrative infinitive.

199. *ba'si-*, verb "to be night;" N. and C. Yana *basī'-* (cf. note 46). For *-t̄-* and accent on first syllable, cf. notes 175, 185, 188; Yahi *ba'si-* shows that N. and C. Yana *basī'-* has secondarily lengthened *i* (cf. C. Yana *nidū-*: Yahi *ne'du-*, note 188). *-k'i-*, shortened form of *k'i'a-*, meaning as in notes 46, 80; as for phonetic form, Yahi *-k'i-* is not identical with C. Yana *-k'i-*, which is the "syntactically connected" form of *-k'i'a-*, while Yahi *-k'i-* is an absolute shortening of *-k'i'a-*, identical with feminine *-k'i-*.

200. *'oi-dja- . . . -a-*, verb "to handle several bulky objects (like deer, books, storage baskets);" cf. Yahi *'oi-dja-waldi-a-* "to put down several deer, books." *'oi-* active form of static *'ui-* "several deer, storage baskets lie." *-dja-* and *-a-*, as in note 189. *-t̄u-*, reduced form of *-du-* "again" (cf. note 38); N. Yana examples of *-t̄u-<-du-* are *wē'-t̄u-k'i-* "to bring home," *a-mā'-t̄u-sa-* "woman goes home with," *mo'-t̄u-gap-* "to fetch back from the north." The rule seems to be that unaccented *-du-*, when preceded by the accent (not necessarily directly) and followed by an intermediate stop, aspirated surd, or s, becomes reduced to *-t̄u-*. *-sa-*, as in note 196. *-'*, as in note 165.

201. *xa'a'lai-*, verb "to be dawn, morning," N. and C. Yana *ha'lai-*, *hal'ai-* (cf. note 48); note characteristic Yahi echo-vowel in *xa'a-*. *-sgin-*, verb suffix "early," C. Yana *-gin-*, N. Yana *-git-* (e.g. *bai-git-* "to hunt deer early," *ni-git-sa-* "to go off early"); for Yahi *-s-*: N. and C. Yana *-t̄-*, cf. notes 159, 186. *-k'i-*, as in note 199.

202. *mas-*, primary verb stem of static form "to rub (an arrow-shaft) smooth;" its N. and C. Yana correlate would be *ma-*, but I have no record of this. *-du-*, probably verb suffix "again," cf. note 175. *-waldi-*, as in note 163. *-s-*, shortened form of *-si-*, present tense, cf. note 182.

203. *mus-*, active form of *mas-*, cf. note 202; *u* is ordinarily static and does not properly correspond to *a*, hence *mus-* may be secondarily developed from *mos-* (cf. '*ui*': '*oi*', note 200; *dam-*: *dom-*, note 163). *-miyē-*, probably represents *-miyai-* (cf. note 175); meaning unknown but possibly incorporated form in *-i-* (cf. notes 7, 67, 69, 107, 122) of some noun *-miya-* with instrumental function (cf. N. Yana *djō-yu-k'uyul'-a-* "to shake with the head, *k'uyu'l-la*," *dil'-xai-gu-* "eye waters" with *-xai-* "with water, *xa*-"). *-'i-*, narrative infinitive.

204. Full form *dē'duk!au'a*, causative narrative infinitive (for *-a*, *-*, see note 165) of static *di'duk!au-* "to be finished, to finish (intr.)"; cf. N. Yana *dik!au-* "to be finished," causative *dēk!au'a-*, *dēduk!au'a-* "to finish (tr.)" *dē-*, active form of *di-*, primary verb stem indicating "continuous movement, passage" (e.g. N. Yana *di-wul-* "to dance into the house," *di-git-* "to turn a somersault," *di-lili-gu-* "basketry stitches run smooth," *di-lau-* "to die," literally "to pass out of (life)"). *-du-*, as in note 175. *-k!au-*, as in note 186. *di-k!au-* thus literally means "to be cut off in the course of a continuous passage," *dē(du)k!au'a-* "to cause to be (again) cut off in the course of a continuous passage."

205. *men-*, active verb stem "to turn in a circle, to twirl," static *min-*; C. Yana *min-*, N. Yana *mit-*, active and static (e.g. N. Yana *mit-* "to twirl the fire-drill," *min-mu'-a-* "to roll up tobacco," *mit-k'at-* "there is a whirlwind"). *-t!ap-*, secondary verb stem "to squeeze, to crush" (cf. N. Yana *ō-t!ap-* "to squeeze," *yul-t!ap-* "to crush with the palm"). *-wal-*, verb suffix "wrapped around;" cf. note 214, also N. Yana *djō'-wal-t'dja-mauna* "buckskin strip around woman's hips from which bark fringes were suspended." *-'i-*, narrative infinitive.

206. Full form *de'tc'wun'a* (form *de'tc'wun'amauna* occurs later on in text). *de-*, short form of *dē-*, causative form of *di-*, primary verb stem "to be inserted, to be caught in" (e.g. N. Yana *di-waldi-* "to be caught in a tight place from which egress is difficult," *di-ts!au-* "to be caught in a cleft"). *-*, as in note 175; *de-* counts as a true short vowel, as it is shortened not because it is closed by *-tc'* (in fact *-tc'* forms its own syllable) but because *-tc'* demands the short form of the preceding stem vowel, whether static or active. *-tc'*, element of plurality in certain verbs, here referring to plurality of object; analogous to *de'-tc'* are Yahi *do'-tc'-yus-dja-waldi'-a-* "to put down several large baskets": singular *dō'-yus-dja-waldi'-a-* "to put down a large basket," C. Yana *da-tc'-wul-* "several look into the house": *dā-wul-* "one looks into the house." *-wun-*, local verb suffix "into a hole, into the house," corresponds to N. and C. Yana *-wul-* (cf. note 126); *l>n* occurs in N. and C. Yana aside from diminutive forms (see note 96), e.g. N. Yana *ā-nunmai-* "road is hard to trace, all but invisible": *lulmai-* "blind" (cf. note 122). *-'i-*, as in note 165.

207. *men-*, as in note 205. *-waldi-*, as in notes 163, 202. *-s*, as in note 202.

208. *'e-*, shortened in closed syllable from *'ē-*, see notes 154, 180. *-xt'i-*, secondary verb stem "to smear on, to lay on color," N. and C. Yana *-t'i-i-* (e.g. N. Yana *p'o'-t'i-* "to put pitch on a salmon-spear," *do'-t'i-t!ai-* "to smear all over one's hands and feet"). *-'i-*, narrative infinitive.

209. *'ē-bil-*, as in note 154. *-'andi-*, as in note 185.

210. *i'yui-*, N. and C. Yana *iyui-, iyūi-*; see notes 67, 85. *-'i-*, see note 175. *-k'i-*, as in note 199.

211. *me-*, shortened in closed syllable from *mē-*, active verb stem "to handle several flat objects" (e.g. Yahi *mē-waldi-* "to put down several plates, basket-trays, mocassins," *mē-ts!gil-* "to put feathers in water;" N. Yana *me-'gat-* "to break wood"), static *mī-* (e.g. N. Yana *mī-* "several pieces of wood lie"). *me-t'dja-*, cf. N. Yana *metdja-du-dapts'-li-* "to fold up," *metdja-lau-* "to take off a skirt;" *-t'dja-*, possibly "laid on top." *-ri-*, local verb suffix "down;" see note 188. *-'i-*, narrative infinitive.

212. *dē-*, verb stem “to shear, to peel off” (e.g. N. Yana *dē-k!adat-* “to cut off head-hair completely,” *dē-ya-* “to cut off hair with shears,” *dē-tc!at-di-* “to bark a tree”). *-wunī-*, incorporated form of *bū'ni* “feather,” here employed as object; for change of *b-* to *w-* in incorporated form, cf. N. Yana *ba-* “deer”: *djū-wai-dja-* “to taste like venison,” *bal-* “mouth”, *ul-lau-wal-* “to have a bad breath.” *-i-*, narrative infinitive.

213. *p'ō-*, primary verb stem “to paint, to blacken” (e.g. N. Yana *p'o-'t'i-t'lai-* “to put pitch all over one's hands and feet,” *p'ō'-djal'-lī-mauna* “painted bow,” *p'u-llai-* “to smear pitch over”). *-wunmi-*, incorporated form of *bunmi-*, cf. Yahi *bunmi'-m-tc'u* “eyelashes,” literally “hair-of-eye” (cf. note 166). *bun-mi-* probably contains *mi-* “hide, fur, hair ‘covering’” (cf. N. Yana *'ahā'limil-mi* “fox hide,” *bat'i'l-mi* “blanket of deer hides,” *mi'-wi* “hide;” *bun-*, *-wun-* (see note 212) may be another form of *būni-* “feather” (cf. *-k'un-:* *k'ūni-*, note 214), whence *bun-mi-* “feather hide, feathery covering” or, in reference to an arrow, “feathering.” *-i-*, narrative infinitive.

214. *we-*, shortened in closed syllable from *wē-*, active verb stem “to wind, bind together,” cf. C. Yana *we-'t'up'-di-* “to unwind (one's hair);” static *wī-* “to be wound, bound together” is probably contained in N. Yana *wī-k'un-na* “woman's belt wound of hair” (for *-k'un-* cf. perhaps Yahi *k'ūni'-a-* “to wear around the neck”), *wi-dja-lal-la* “bat” (literally, “whose feet, *lal-*, are bound along”). *-p'da-*, verb suffix apparently signifying “two together,” correlative to *-t'da-* “two apart” (cf. Yahi *'o-t'da-k!au-waldi-* “to cut in two on the ground with a stick,” *'a-t'da-tc'u-tl'antcl'i-* “head falls away from body,” *'a-t'da-siriri-tl'antcl'i-* “to be strangled in two,” *djo-t'da-xa-bil-waldi-* “to break one's arrow in two”); *-p'da-* is probably compounded of *-p-* (from *-m-*; Yana *-m'-*, preserved as voiceless *-m'-* in C. Yana, becomes *-p-* in N. Yana and Yahi; this *-m-* is probably identical with *-m-*, *-mi-* in *-m-tcl'i-*, *-mi-tcl'i-* “together, with each other,” cf. *-tcl'i-*, *-t'lal-tcl'i-*, *-tlan-tcl'i-* “apart, from each other”) and *-da-* (indicates dual reciprocity?). *-wal-*, as in note 205. *-i-*, narrative infinitive.

215. *busdimi-*, static verb “to smooth the foreshaft of an arrow.” Analysis not clear. *busdim-* probably consists of primary verb stem *bus-* and secondary verb stem *-dim-*. *-di-*, possibly local verb suffix “down” (“to smooth down”); cf. notes 23, 81, 128. *-'andz'*, as in note 185.

216. *wō-dja- . . -a-*, verb “to handle, place a long object (like a bow, baby, twig”); causative in *-a-* formed from primary stem *wa-* (cf. *wa-rul-* “a bow lies,” *wa-ri-* “wood lies”); *-dja-*, as in notes 163, 189, 200. *-du-k!am-*, compounded of *-du-* “again” (see note 175) and *-k!am-* “toward self” (see note 136), signifies “set aside, to be finished”; cf. Yahi *ga'-du-k!am-* “to finish talking.” *-i-*, as in note 165.

217. Allegro form of *k'us.* *k'u-*, verb stem “to be not;” cf. notes 31, 77. *-s,* as in note 202.

218. *djīnau-*, verb apparently meaning “to be much to eat.” *djī-*, primary verb stem, cf. perhaps N. Yana *djī-* “to taste” (intr.) (e.g. *djī-yu'la-* “to taste mouldy,” *djī-dja-* “to taste in a certain way”). *-nau-*, verb suffix referring to “abundance of food” (e.g. N. Yana *djō-du-nau-* to give food to some one,” *dja-nau-* “to have plenty to eat”). *-i-*, infinitive; negation is generally expressed by *k'u-*, provided with tense-modal and pronominal suffixes, followed by the infinitive of the verb. *-nam^{ba}*, full form *-namba* (*a* as in English *but*; this timbre of *a* is not altogether rare in Yahi in closed syllables before nasal consonants), apparently a modal enclitic, frequent in Yahi but unknown in N. and C. Yana; “it would seem, so” is hardly more than a plausible guess (cf., further on in this text, *bē'-gu-ma'nī'a-na'mb^a* “so that is what it is!”). *-t'i-*, as in note 182.

219. *gi'p'au-*, passive form of *giwau-*. *gi-*, primary verb stem "to have in mind," cf. note 63. *-'*, as in note 175. *-p'au-*, passive form of indirective *-wau-*, cf. note 72. Yahi *giwau-*, *gi'p'au-* corresponds to N. Yana *giwa'u-* "to stand wishing for something to eat." *-yau-*, gerund; cf. note 5. *-wa*, shortened form of *-wa'a*, final form of passive suffix *-wa-* (e.g. N. Yana *diwa'iyawu'a* "being seen," *diwa'isiva'a* "he is seen"), cf. notes 72, 117, 123, 136.

220. *yôma-*, verb "to give to eat;" not found in N. and C. Yana, which employ instead *djôdunau-*, passive *djudunau-ma-*. *-'*, narrative infinitive.

221. Full form *ma'ri'mi* "woman," C. Yana *ma'ri'mi*, N. Yana *marî'mi*; see notes 13, 26, 121.

222. *k'û-*, negative verb "to be not" in its substantive verbal sense ("there is not"), while *k'u-* negatives "to be" as copula (cf. note 217). In C. Yana *k'u-* and *k'û-* are similarly used (for *k'u-*, cf. notes 31, 77; for *k'û-* cf. *k'û-ba-* "to be all gone," *k'û-p'au-* "there is nothing for," *k'û'-andi-s* "there are no longer any"); in N. Yana *k'û-* is both negative substantive verb and negative copula. *-s*, as in note 202.

223. See note 59.

224. *ba'iwaki* "foreshaft;" analysis uncertain, but its literal meaning is apparently "what fits over (the shaft)." *ba-*, primary verb stem, possibly identical with *ba-* "to run, to move quickly." *-iwa-*, local verb suffix "over;" cf. N. Yana *-iwa-* (unites with preceding *a* and *i* to *ai* and *î* respectively), *-îwa-* (after heavy syllables), e.g. *dja-iwa-nat-* "to hold one leg over the other knee," *ne'-îwa-gil-* "to step over." *-k'i*, significance unknown, possibly nominalizing suffix; cf. N. Yana nouns in *-k'i*, e.g. *dâ'iwa-k'i* "tiger-lily," *k'u's·i-kli* "annis root," *p'a'tli-k'i* "belt."

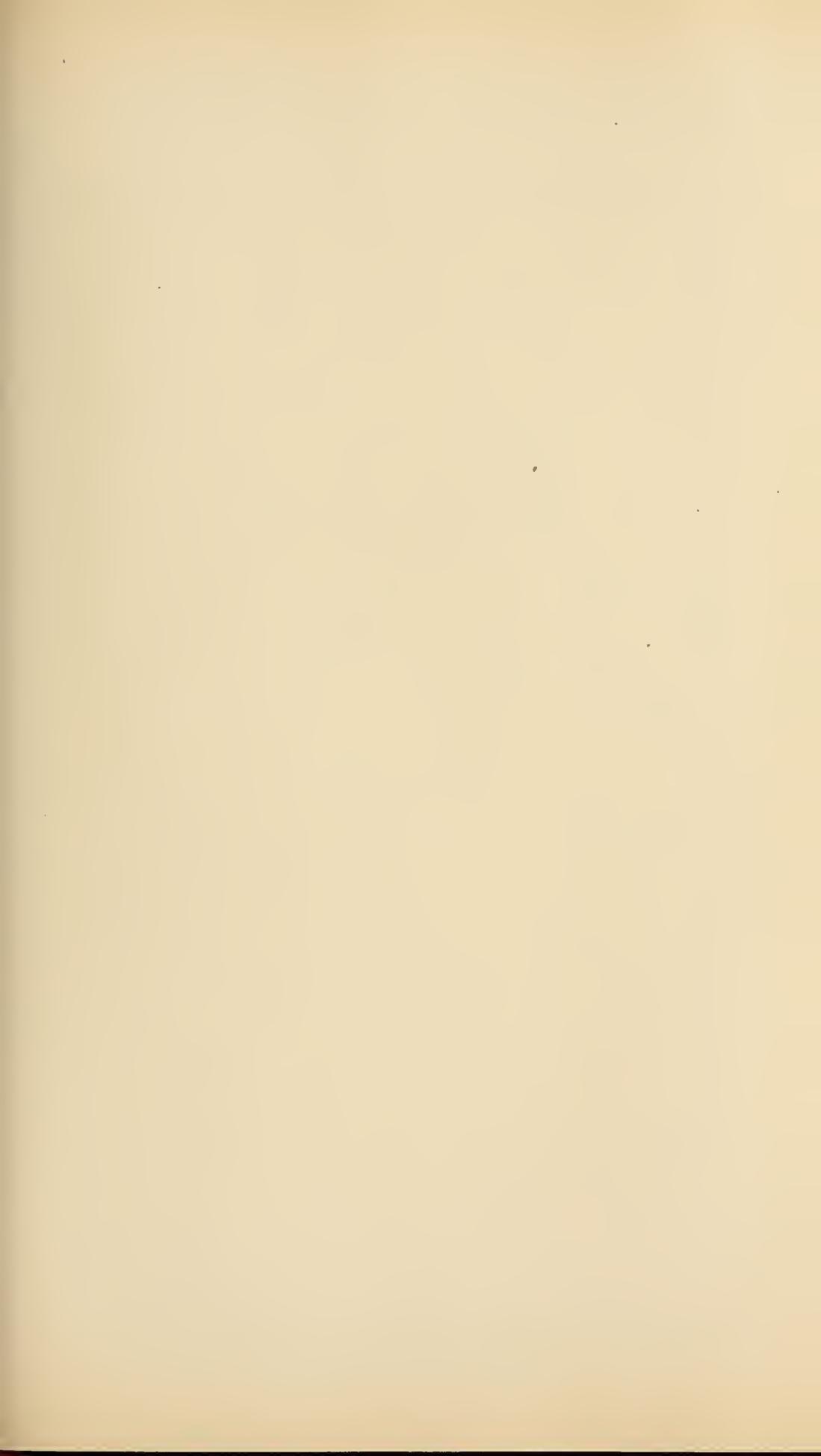
225. *bê-*, verb stem "to be so and so that . . ."; very common in all three dialects (e.g. N. and C. Yana *bê'nidja* "it is I;" C. Yana *bîman't' bê'* *aidja dju'ga p'u's·â'i* "truly-it-was be-that-one there silkworm smoke," i.e. "in truth it was Silkworm there that did the smoking"). *-'widja*, verb suffix of modal significance, possibly equivalent to "pray, indeed;" other Yahi examples (it is not found in N. and C. Yana) are *dja dji t'û'-widja-yauna* "what the-my doing-pray?" i.e. "what, now, shall I do?" *dja djin yû'-widja'-a-yauna* "what the-our making-fire-indeed?" i.e. "how, indeed, are we to build a fire?"—Objective *gi* after *bê-*, a substantive verb, is peculiar.

226. *p'âtl'elwal-*, noun "lizard" (sp.?). Precise analysis unknown, but in form clearly composed of primary stem *p'â-*, secondary stem *-l'el-*, and, in all likelihood, *-wal-*, incorporated form of *bal-* "mouth." *-la*, assimilated from *-na*, absolute noun suffix. *-t'i*, as in note 182.

227. *baiwaki'i*, as in note 224; here used as denominative verb "to go for foreshafts" (cf. note 69). *-ru-*, as in note 69. *-k'arâ-*, modal suffix of appeal or urgency, used in imperative forms; very common also in N. and C. Yana (e.g. N. Yana *dja'u-ru-k'ara'-a'* "come on! go and gather grasshoppers!" C. Yana *ni-wî'lau-k'ara-wi'i* "do ye go east across the river!"). *-ai'*, for *-i'* after *a* (cf. *ba'-ai' < ba'-i'* "to run after some one"), second person singular imperative; see notes 54, 57, 58.

228. *baiwaki'i*, as in note 227. *-'*, shortened form of *-hi*, nominalizing agentive suffix, equivalent to *-si* in note 170; here also it may be taken to indicate purpose; "went off to get sticks for foreshafts."

229. *ne-'*, as in note 188. *-sa-*, as in notes 196, 200; *ne'-sa-* corresponds to N. and C. Yana *ni-sâ'-* (see note 68), cf. note 198. *-'andi'-*, as in note 185.



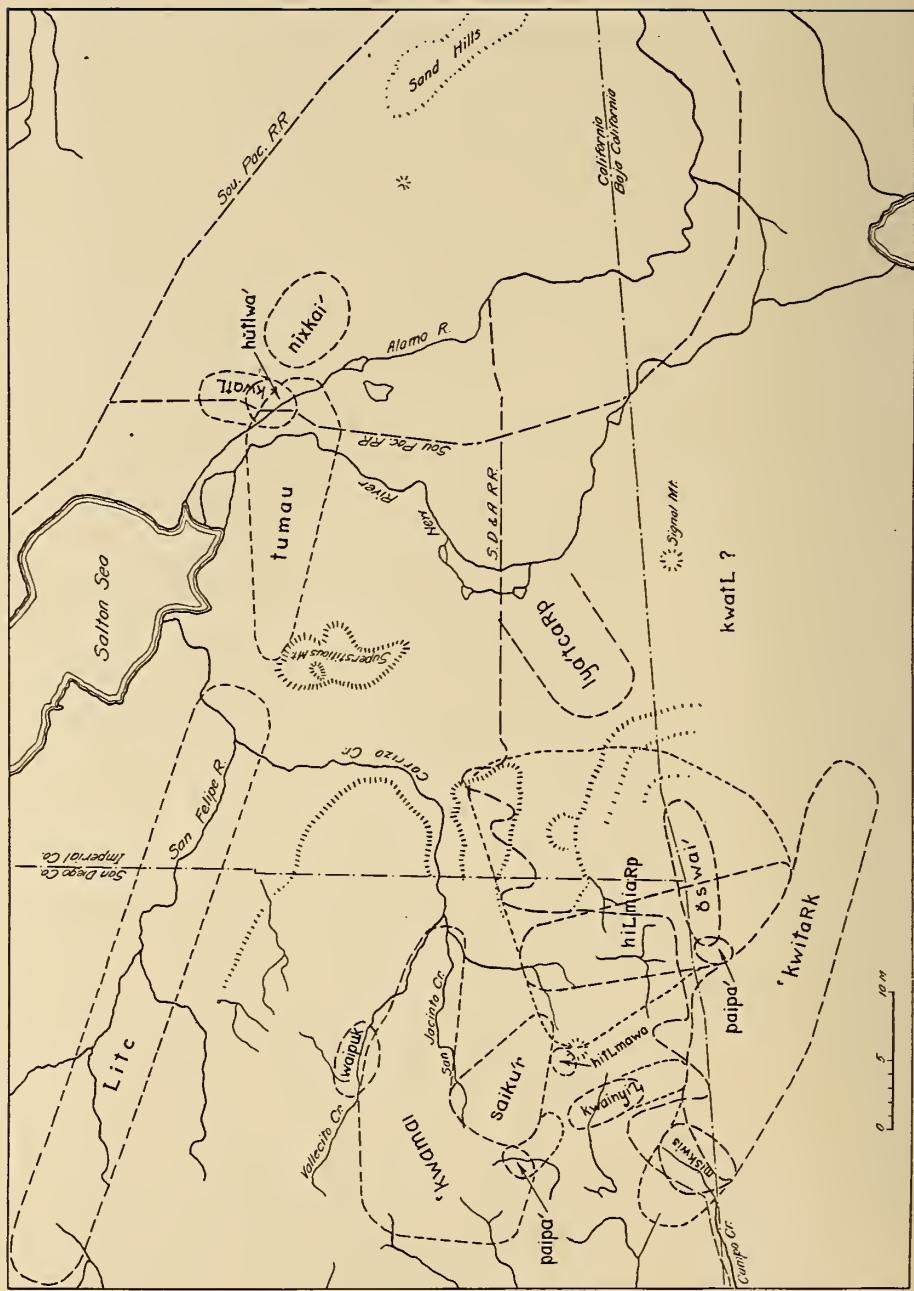
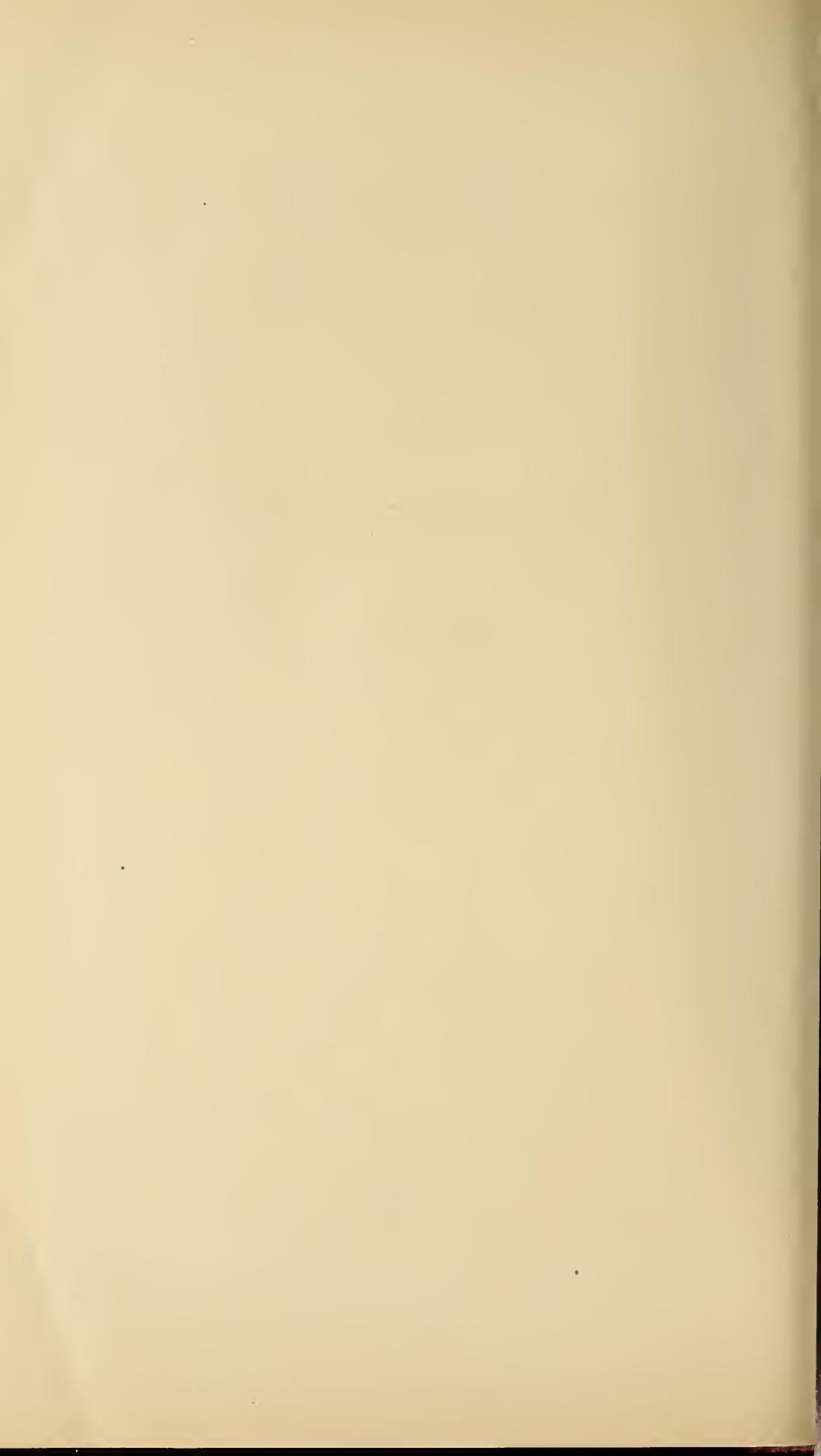


Figure A. Distribution of Southern Diegueño Gentes.

SOUTHERN DIEGUEÑO CUSTOMS

BY

LESLIE SPIER



SOUTHERN DIEGUEÑO CUSTOMS

LESLIE SPIER

INTRODUCTION

The following notes are the result of twelve days' work (July-August, 1920) with the Southern Diegueño near Campo, San Diego county. They are offered in this fragmentary form because an opportunity to revisit these people may not present itself for some time.

The information was all obtained from one man, Jim McCarty, a fairly well informed individual of over eighty. He has also furnished the material given in Edward H. Davis' *The Diegueño Ceremony of the Death Images*¹ and Edward Winslow Gifford's *Clans and Moieties in Southern California*.² Will F. Coleman, a Northern Diegueño half-blood, served as interpreter.

The phonetic system is that of Kroeber and Harrington,³ with a few modifications: my g and k, gw and kw correspond to k and kw. Initial k is usually 'k; η is also present. I follow Waterman⁴ in writing r for r and r for r. The vowel system is that of the *Phonetic Transcription of Indian Languages*.⁵

SOCIAL ORGANIZATION

THE TRIBE

The Southern Diegueño, who now reside on the divide between San Diego and Imperial counties, do not draw the line separating them from their congeners to the north, west, and south with any sharpness. In spite of the dialectic difference which sets them off, they describe some of their localized gentes as belonging to the North-

¹ In Contributions from the Museum of the American Indian, Heye Foundation, v, 1919.

² Present series, XIV, 155-219, 1914.

³ Phonetic Elements of the Diegueño Language, present series, XI, 177-188, 1914.

⁴ The Religious Practices of the Diegueño Indians, present series, VIII, 272, footnote 1, 1910.

⁵ Smithsonian Miscellaneous Collections, LXVI, 2, 1916.

ern Diegueño as well. This does not mean that the *lyatcearp* gens of the southern people, for instance, is equated to an identically named gens of the northerners; rather, the *lyatcearp* gens is included with one or the other group according to the exigencies of the moment. Certain gentes are also found in Baja California, Mexico; among whom, it is suggested, a dialectic change is met some distance below the border. The essential idea is one of foes: they look upon the localized gentes at the center of their habitat as clearly forming a culture group, whereas those who live beyond this limited range may or may not be considered Southern Diegueño.

The territory of the Southern Diegueño lies eastward of Cuyamaca mountain and Rio del Tia Juana to the hills on the eastern border of the Imperial valley, from San Felipe river on the north to some undetermined point in Mexico not far south of the boundary. Their principal settlements lie north and south along the divide which the San Diego-Imperial county line now follows: the country to the south and particularly that to the east is hunting territory.

They call themselves *tipai'*, people.⁶ The name '*kwitxa'l* (marauder?) was recorded for a local group, comprising several of their gentes, living on the east slope of Cuyamaca mountain, and *ikwainil tipai'* (blackwood people), for a similar group. The Northern Diegueño are called *kumiai*, which Kroeber,⁷ however, assigns merely to a local group of those people. This may be the case, for the members of the same tribe living at Santa Ysabel are called *itlkipa'*. The inhabitants of Mexico, who speak a closely related dialect, are called *xaxuwa'k.* The Shoshoneans of Warner's Hot Springs are *hakwote*, the Yuma, '*kwitca'n*, and the Cahuilla, *kawi'*.

Their relations with the Northern Diegueño were intimate: intermarriage may have been common. Their intercourse with the Yuma was probably greater than with the tribes of the peninsula and certainly more so than with the Cahuilla and Mohave.^{7a}

The degree of national consciousness is difficult to fix, but apparently it is only slight. The real unit, welded by social cohesion, is the local group in which one gens predominated, perhaps to the

⁶ Waterman recorded *kawakipai*, southern people, but this may apply only to the Northern Diegueño. DuBois gives Western Indians for "the Diegueño as far south as Manzanita" (*The Religion of the Luiseño and Diegueño Indians of Southern California*, present series, VIII, 138, footnote 192, 1908).

⁷ The Indians of California, in press as a bulletin of the Bureau of Ethnology.

^{7a} Heintzelman notes that the Cocopa were allied with the Jacum Indians (Diegueño) and other tribes southward in Baja California (*in 34 Cong., 3 Sess., House Ex. Doc. 76*, Washington, 1857, Indian affairs on the Pacific, p. 43).

exclusion of all others. Nevertheless, some feeling of solidarity is indicated by the joint action in the following episode. When my informant, Jim McCarty, was at the age of puberty (about 1855) all the Southern Diegueño went east to fight the Yuma, but suffered defeat at their hands.^{7b} The remnants then fled to Indian Wells (*xatecupai*, dig for water) in the desert and to Brawley (*camikwatlau'*, many bird tracks). Thence they proceeded first to Harper's Oil Wells (*tamu'kwatcuka'rt*, red willow) near the Salton sea, then to a point east of Mountain Springs (*xakeru'wiyu'p*, water in lines), then to a camp (*xakwinox*, resounding water) a mile south, and finally to a cove to the east (*wikwimil*, black rock). From this place they moved westward, starving, to *nal'i* in the foothills, where they found mescal to eat. *Lya'tcarp* gens then went south to Blue lake (*ewi'mülü'l*, near Signal mountain?) and *hilmiarp* gens east to *xamatwa'rt*, red muddy water. Later all the Southern Diegueño returned to the last mentioned place; there were no Mexicans there at that time.

GENTILE ORGANIZATION

The gentes⁸ (*cimüL*) are patrilineal, exogamous groups, each definitely associated with a restricted locality which is probably its usual summer home. Twenty-one gentes are remembered of which one, *kalya'rp*, butterfly, was extinct sixty or more years ago.

'kwaxa', extinct?

tumau', grasshopper (*tumau*)⁹

*ly'a'tcarp*¹⁰ (*yatcap*)

neeix hawö'te, usually simply *neeix* (*naxwatec*)

waipu'k, king snake

hilmiarp (*hetmiel*)

kwatl, a hide (*kwatl*)

hülwa', twined basket

'kwitark, fire split rock (*kwitak*)

'kwamai', high¹¹ (*kwamai*)

^{7b} Noted by Heintzelman as a recent event in 1857 (*loc. cit.*, 40).

⁸ Called clans by Gifford, present series, XIV, 167-174, 1918.

⁹ The bracketed forms are those recorded by Gifford, Clans and Moieties in Southern California, present series, XIV, 168, 1918. Two gens names given by Gifford were not recognized by my informant: *hakisput* was thought to be a rendering of *hakülkü'l*, peeping into a house, and *haiyipa* to be *kiyipé*, a gathering. The latter may be identical with my *paipa'*, although the location given is contradictory.

¹⁰ Does not mean "short" (Gifford, *loc. cit.*, 173). Names for which no meaning is given are said to be meaningless.

¹¹ Possibly in reference to their occupation of the highest portion of the tribal range.

miskwi's (miskwis)
 kwí'nehite, (kanihite, kwinhite)
 hitlmawa' (hilimawa)
 öswai'
 Lite, worthless; recently became extinct
 kalya'rp, butterfly; extinct
 xotú'm, drum¹²
 kwainyi'L, black
 saiku'r (saikul)
 paipa'
 nixkai'

There are no myths explanatory of the names for which meanings were obtained, but it is said that tumau', grasshopper gens, ate grasshoppers.

The loci of the gentes are given in the following list of places remembered as their homes during the middle of the last century. Roughly the Campo district may be assigned to miskwi's, with the 'kwitark to the southeast in Mexico. Paipa' and öswai' were immediately south and east of Jacumba. The watershed north from Boulevard held hilmiarp contingents. Moving northwestward across the higher portion of the divide, near Laguna we would have found kwainyi'L south of La Posta (leaving the country northeast of the Agency unoccupied), hitlmawa at Manzanita, saiku'r lying westward between this place and Buckman's Springs, where paipa' was located, and 'kwamai extending over the western and northern slopes of Laguna mountain into the valley of Vallecito creek. Waipuk was located in this valley. The range assigned to Lite lies along the San Felipe drainage near Warner's Hot Springs and near San Felipe: perhaps the intervening territory should be included. Tumau' lived south of the present Salton sea, with nixkai', hulwa', and kwatl at the edge of the hills to the east. The last named may also have been found in the Signal mountain district in Mexico. Lya'tearp settlements were located near Coyote Wells in the Imperial valley.

However, according to Heintzelman the Yuma lived along New River to the "Salt Lake" and possibly west of San Felipe in 1850.¹³ Possibly this conflict of testimony is to be resolved by assuming either that these Diegueño settlements were north of any Yuma groups, or that they were temporary winter residences among them, or, as seems

¹² Thought to be derived from Spanish *tambor*; the drum is not native with these people.

¹³ Heintzelman, *loc. cit.*, 40-42.

most probable, that the Yuma had driven the Diegueño from this territory shortly before Heintzelman's day.^{13a}

As the data stand, there is some overlapping of these areas. This may either be merely apparent and due to the indefiniteness of localization,¹⁴ or it may indicate the occupation of the same site by two or more gentes at different periods. It seems most probable, however, that such gentes, with others as well, lived in these localities either in single communities or within a small radius. My informant was told as a small boy that the gentes formerly lived in clearly segregated localities, but were beginning to mingle.¹⁵

'kwaxa. These were only a few when McCarty was a boy: he saw them at Yuma, but does not know their home district. This may be a Northern Diegueño gens living in the eastern desert.

tumau'. Lived north of the western groups of Yuma in the Imperial valley, at tamu'kwateuka'rt, north of Brawley, and at xa'tcamí'kwatlau', west of that town. At one time they were with the kwatł gens at Matcotó'p, gorge, at the northern foot of Superstitious mountain. This gens is said to be distinct from the Northern Diegueño gens of the same name, which agrees with the information given Gifford by the latter.¹⁶

lya'tarp. Their permanent residences were at xakanűx, east of Coyote Wells on the edge of Imperial valley, at xakuruwi'p, a half-mile cast, and also scattered about the valley. This is identical with the Northern Diegueño lya'tarp gens.

neeix. The only locality remembered is milkwīlnok (long ? canyon) at the head of the West Carrizo gorge near Warner's Hot Springs. Although this is described as the northern limit of their territory, it places them within the Northern Diegueño range. Presumably this gens, like the last, had members in both tribal groups.

waipu'k. A myth ("Origin of Death," p. 331) relates that this gens, then named lakwi's, moved westward to xatapi'l (a grass), west of Calexico, where nearly all died of starvation. Only one family came west to Vallecito. They now live at kwicmit, west of Julian.

^{13a} The distribution of these groups has some bearing on the supposed existence of the Kamia, since a part of their territory is also assigned to the latter people. Further, it was stated on several occasions that there was no foreign group intervening between themselves and the Yuma. Cf. A. L. Kroeber, Yuman Tribes of the Lower Colorado, present series, xvi, 478, 1920.

¹⁴ The informant's descriptions were vague in the extreme for one not acquainted with the geographic details of his country. The obvious step was to go over the ground with him, but this was impossible.

¹⁵ Obviously this may be rationalization rather than fact.

¹⁶ Loc. cit., 173.

hilmiarp. Distributed from mokopa', a high peak nine miles south of Jacumba in Mexico, northward in a narrow strip to hauwitca'r, west of Carrizo Springs on the mountain heights. From south to north the settlements were axmanyeha', south of the Jacumba valley, ūkiyūm and wikitcūrap, near Jacumba, sawwiya', west of that town, hakwūskū'r, east of it, hakwasax (stinking water), hakwasīl (salt water) and extukwaihwēlp to the north, wihopchteotl, five miles in that direction, siteaknua', north of the Jacumba valley, and matpitl on its northeastern side. Continuing north the occupied sites were pamu', wiyunai'e, near the preceding, hateüktcū'ke, a little to the north, wiktwin'yul (striped rock) a big mountain north of Jacumba, paishai'tl, eight miles above Tule valley, sokwiti'p, to the north, hūntökkolwa'wa (frog's house), still farther north but south of hauwitca'r, near Carrizo Springs. During my informant's boyhood he lived at hatawī'ra, Mountain Springs, where he was born, moving eastward to nupno'p, then to the north at iswa'wa, a canyon in the desert north of Coyote Wells, then north to karwixa' in the foothills (Coyote mountains ?), westward to the divide at widjipawīl, southeast of Boulevard, when he was a little older, and finally when full grown at wispiū'l (pointed rock), nine miles north of Boulevard, and at sumkwoha', to the west.

kwatl.¹⁷ Lived in part in the foothills on the eastern edge of the Imperial valley north of Brawley at sitcea'rkn'iwa' (screech owl's house), a half-mile north at mataka'l (round mound), at teama'rtcanā'r (where food is cached) a mile north, at xacami'kwala'u' (many bird tracks) three and a half miles north, and three miles north at tamu'kwōteuka'rt (tamu, willow). They also lived north of Enseñada¹⁸ in Baja California at ax-t'a (arrow reed), at 'kwapo'l to the east, and at sanxeli'p (San Felipe, the place has no native name) to the south, at xatamu'r (lake) northeast of ax-t'a, at matnū'k (bend) to the east, and at xa'kwisiyai' (shaman spring), southeast. The Mexican group are e'kwal in their own dialect.

hūlwā'. This group lived at three places named above, sitcea'rkn'iwa', teama'rtcanā'r, and mataka'l; although in this connection it was stated that these lay east of Imperial and their respective positions were reversed.

'kwitark. Their territory lay roughly south of the international boundary from Morena Butte eastward to a point some distance

¹⁷ Gifford locates this gens at hakwaskwak (bitter water) in Jacumba valley, Baja California.

¹⁸ Presumably a place in southern Imperial valley is meant, not the seaport.

southeast of Jacumba. They lived at mǐlkwatai in the Campo valley, to the east on the site of Warren's Hotel according to Gifford, at xakwakwo'k (bitter water) south of Valentina (two miles south of Campo in Mexico, at xakaiyé (ford) to the east, at x·akwalma's (three cottonwoods) southeast, at piulateau', southeast in Mexico and south of the Agency at xan'imeop (white water), Hipass railroad station, at matkurkur (heaped dirt), Round mountain station west of Jacumba, at xakwakwa's (yellow water) on the south side of the Jacumba valley in Mexico where prickly pears are gathered, at xasi'kwaiyara' (burnt black birds), five miles southeast of the town over the mountain, at wíkwítckwúl' (gap between rocks) west of the last but fifteen (?) miles south of the town, at mǔspí'lyayau (sparrow hawk), under a high peak, at xakütk'út to the southeast, at kwapěnk'út (cross) a mile and a half south, and at xatai' (big water) a half-mile south and twenty miles southeast of Jacumba.

'kwamai'. This gens lived throughout the length of Rattlesnake valley west of Laguna mountain at xakwapail (water on hillside), a big spring at Pine Valley, at xakwiteEploy'ik (boiling springs) seven miles northeast, at wíklyutci's (singing rock: it whistles and sings when one passes), an equal distance in the same direction, at tisi'l (a grass) near the north end of the valley, and at kǔmtaukwiil to the east. In the vicinity of Vallecito and San Jacinto creeks, they lived at matnú'k (bend) where the creek makes a sharp turn in Mason valley near Vallecito, at wiipici' (roek, chemissa brush) three miles southeast, at kwaiteältcä'l (crevice: water flows from three crevices) a mile farther southeast, at xakwítēpailp (water on bank) a half-mile southeast, at tsílmükx·a' (shoulder water) to the south, at matlaiu'-inya' (sandy road) a mile east at Indian Potrero, probably Palm Spring school, and at xapukax·a (lizard water) one mile east. The country to the east is cut off by Vallecito mountain (probably the Fish creek mountain of the maps). They also lived about Laguna at pílyakai', seven or more miles north of La Posta at the foot of Laguna mountain, at xarpaui' (lilac, Laguna ranger station), at xarpsi'tl (pottery clay spring) at the southern end of the lake, at tcaunyiwa (Chauny's house) nearly a mile north of the lake, at wi'kana'rlaxa' (shell rock water), a small lake three-fourths of a mile east of the preceding, at wíkópxau' a mile north, and at yarxkai' (wild plums) on the mountain two miles northwest of the last mentioned.

mis̄kwi's. Occupied matkwiska'l and x-akwakwūk (bitter water) with 'kwitark gens (?), a mile or so south of Campo, at hat̄tōc'p (riled water), the spring at the Campo store, at 'kw̄iskw̄l, just west of the Campo schoolhouse, at 'oxknol'kwatai' (bed rock), an exposed ledge three miles east of Campo, to the east at it̄lkehā' (worms in water), three-quarters of a mile north of Warren's Hotel, and at a nameless place across the canyon to the east.

kw̄i'neh̄ite. Location unknown. Gifford places them in the southwestern part of Imperial valley.

hit̄lmawa'. The only known settlement was at sn̄au'yuke (red oak) at Manzanita.

ōswai'. Lived at the hot springs in the Jacumba valley a mile south of the border. The Mexicans drove them east to xakwē'nkeṭopu'l; thence they went eastward to the foothills near the desert, finally returning to the Jacumba valley.

lite. This group is said to have lived in the region north and west of Valleciito, but the following localities would rather indicate that they lived roughly along the San Felipe drainage, viz., winā'l, north of San Felipe, wi'i (rock tree) five miles northeast, hortlū'ke (ball chollas ?) on the eastern side of Warner's Hot Springs valley, mathwai' (Mataguay ?) eight miles west, and ax·t'a (arrow reed), four miles west of the last mentioned.

xōtū'm. Lived at cīkau' (milkweed), Tenama, twelve miles south of Campo in Mexico, and at xakwisiyai' (shaman water), thirty miles southwest of the Agency. Since only one or two have been seen by the people of the Tecate divide, this can hardly be called a Southern Diegueño gens.

kwainyi'l. Lived at kumaimuwa' (a plant) at La Posta, and at a place a little to the east; also at xemumū're (bad mortar) in the valley south of La Posta. They ranged southeastward into the valley in which the Agency stands midway between Campo and Boulevard.

saiku'r. This gens is associated with the southeastern slope of the Laguna mountains in the general neighborhood of Guayapipe. Settlements were at x-akwisičōn (running water), Mud Hole springs, five miles east of Laguna lake, at xakwa' (concentric ripples) on the Morris ranch, two miles south, to the south at tītečkw̄l (many corners) on Ames ranch, at wimo'l (boulders) a mile west, at 'kw̄it̄ipai'ip (to rest one's head on a headrest) a half-mile south, and at lauwexa (plenty of water) eight miles east. The last named coincides roughly with the matkwai, northeast of Manzanita, recorded by Gifford.

paipa'. Two widely separated places are assigned to this gens, p̄itlyakai', at the southern foot of Laguna mountain, also occupied by 'kwaimai' gens, and yaloho', a half-mile south of Jacumba. It was denied that this was identical with the Northern Diegueño gens of similar name (baipa).¹⁹

níxkai'. Lived in the hills east of Brawley.

Two gentes, neeix hawō'te and lite, are located in Northern Diegueño territory; the first was probably a Northern Diegueño gens as well. It is curious that only four of these gentes may be recognized among the twelve gentes of the northern people listed by Gifford:²⁰ this may be an indication of the essentially local character of the gentes of both groups. Gwaha is probably identical with our 'kwaxa, as the informant's indirect evidence would also indicate. Leteapa is clearly lya'tearp; probably a single gens, in spite of being associated with two distinct localities. My informant spoke of them as a southern people when listing the gentes, but as northern when detailing ceremonies. When questioned, he asserted that some individuals belonged to both groups.²¹ Baipa and paipa', tumau and tumau' are said not to be the same people, with which, regarding the latter, Gifford's information agrees.

Several gentes are represented in distant groups of allied speech in Baja California, viz., h̄ilmiaRp, kwatl (locally E'kwal),²² xōtū'n, and possibly others.²³ My informant, a h̄ilmiaRp, believes those of the same gentile name are distantly related to him.²⁴ Possibly they represent the same group.

The largest gentes during the middle of the last century were h̄ilmiaRp, neeix (although the short list of settlements does not substantiate this), and kwatl; next in size were miskwi's, tumau' (again their number seems an over-estimate), 'kwamai', and 'kwitark; the smallest were hitlmawa' (of whom there were only three families in my informant's boyhood), óswai', and saiku'r. There was only one

¹⁹ Gifford, *loc. cit.*, 173.

²⁰ *Loc. cit.*, 173.

²¹ I doubt that the dialectic difference would prove a barrier, but there is no evidence.

²² Possibly the Akwa'ala or Ekwa'ahle known to the Mohave. See A. L. Kroeber, Yuman Tribes of the Lower Colorado, present series, XVI, 476, 1920.

²³ Paipa' has its analogue in Pais or Pai-pais, given as the name of a tribe located along the western and northwestern spurs of the San Pedro Martir sierra and reaching down to the mouth of the Colorado. See Arthur W. North, The Native Tribes of Lower California, American Anthropologist, n.s., X, 239, 1908.

²⁴ Mexican conscription has created an artificial division at the border, so that the Campo people know little of the southerners who they assert are their relatives.

family of waipu'k and but a few 'kwaxa during this period. The list of settlements would suggest that the remaining gentes were small, though Lītc may have been somewhat larger than the rest. It is estimated that hīlmiarp numbered three or four times the present total population²⁵ (250), which would mean that the entire southern group included from 3500 to 5000 souls. While the lesser figure is not impossible, it seems exaggerated.

The occupancy of the gentile territories was seasonal. Winter found them living in groups of mixed gentile affiliation among the foothills on the edge of the Colorado desert. In the spring they returned to the mountains, keeping pace with the ripening of the wild food staples, and passing the summer in their respective territories, where they lived in little groups about the valleys. The whole territory was not occupied at one time: when a locality was hunted out or fruits ripened elsewhere, they moved on. In the course of a year or so, however, all of the recognized settlements would have been occupied.^{25a}

Notions concerning rights to the territories must have been vague despite the theory that one gens could not gather vegetable products nor hunt within the territory of another without their permission. The owners²⁶ would order the trespassers off and enforce their will with weapons. The difficulty in accepting this as a fact lies in the mingling of the gentes even in the mountains. On the other hand, this may be a reflection of the enmity which periodically flared up between the gentes. Hīlmiarp fought with their western and northern neighbors, miskwi's and 'kwamai'. Miskwi's fought with kwainyi'l, their northern neighbors, and with the Northern Diegueño to the west. Hīlmiarp and miskwi's once went north of La Posta to fight 'kwamai, but the latter, getting wind of it, built a stone "fort," which is still extant,²⁷ whereupon the former failed to come to grips. A typical incident, precipitating such a fight, was an occasion when a 'kwamai' man's wife, fetching water in the valley (kwiniilyiya'ka, black canyon) north of the Agency, was abducted by a band of hīlmiarp, who carried her to Mountain Springs. Miskwi's are also known to have fought with 'kwamai about women. On the whole, these antagonisms seem to extend north and south along the divide. On

²⁵ The informant evidently wished to exaggerate the importance of his own gens.

^{25a} Heintzelman notes that the Jacum Indians (Diegueño), located in the mountains, were more numerous in summer than in winter (*loc. cit.*, 43).

²⁶ There seems to be no definite individual ownership of wild products.

²⁷ A similar structure is said to stand east of the Agency.

the other hand, there were definite preferences among the gentes; that of hilmiarp for hitlmawa' and oswai', for instance, was so strong that they commonly lived together. The other gentes regard hilmiarp people as the most stupid, according to a member of that gens.

There was no ownership of the groves of bearing oaks in the mountains. On the other hand, it is said that hilmiarp owned patches of wild plum trees (axkai) and scrub oak (xwüp) at sükoti'p (seeping water) in Tule canyon, north of Boulevard, and of red oak (snau) at xawitear (water in crevices) at Manzanita. Other gentes could not take these products, but these places lie within the district they describe as hilmiarp territory.

Each gens owned one or more eyries from which eaglets were taken for use in the mourning ceremony (ewukerük). Hilmiarp gens had an eyrie on a peak called hamlteahwai' near Jaeumba; paipa' owned another at watetayu'mp, six miles south of Guiyapipe. Another gens wishing to hold the ceremony²⁸ approaches any member of paipa', for instance. A relative of the individual approached is purposely sent, for then no payment is demanded. In each gens there are two individuals, who may be women, who watch and capture the eaglets; one of these, the eagle owner (espakwinhöt) has this function by reason of his special knowledge, the other he chooses and trains as his assistant and successor after his death. These two watch the eaglets until they have down on their heads, when they take whatever number are in the nest, one or two. It is considered fortunate if there are two, for then there will be two used in the dance and donations will be correspondingly great. The eaglet, feeling ashamed when caught, will not eat for four days. He is kept by the recipient gens for about a month in a dome-shaped brush house, a meter high, which is provided with a door through which the bird is fed by the eagle feeder (espakwütsau'e). The eaglet will eat jackrabbits, cottontails, and the hind quarters of deer, but not squirrels. A clay vessel, painted in a special style, is made to hold his supply of water, because he is a person (i.e., one of the tipai). This is the reason why no one would kill an eagle except at the mourning ceremony (this is true even today), and why it receives such care during its captivity. During this time, however, there is no specially religious attitude (prayers, etc.) toward the eagle. The bird cries out at daylight on the day he is to die, for he knows his approaching fate. Only one who knows how may kill him by pressing under the

²⁸ Compare Waterman, The Religious Practices of the Diegueño Indians, present series, VIII, 314-320, 1910.

left wing over the heart.²⁹ All the feathers are saved. When used in the dance, they are the residing places of the spirits of the dead, who leave when the feathers are stored away.^{29a}

An eagle nest, belonging to *h̄itlmawa'*, situated fifteen miles east of Guiyapipe on the slope facing the desert, remained when nearly all the members of the gens had died. Jim McCarty, a *h̄ilmiaarp*, took two birds from the nest. The owner *Pasenu'*, discovering this, came to Jim and accused him of theft. Jim did not answer until almost an entire sack of tobacco had been consumed. Then he said that, since the gens was practically extinct, they no longer owned it, but that he would for a time. *Pasenu'*, taken aback, looked around at the assemblage and then asked for the larger eagle. Jim refused; *Pasenu'*'s gens was almost gone; if he was entitled to any, it was the smaller one. So *Pasenu'* had to be satisfied with the smaller one.

The only suggestion of a totemic complex was the statement that Wildcat was a *h̄ilmiaarp* and therefore wildeats could not be killed by members of this gens. Nor could any others kill them for if they were discovered a fight might be precipitated. I doubt this statement, for no reason could be given why this taboo, which is apparently a general one, is connected with this gens.

It is stated further that the mocking bird (*eakwillau'*) is a *h̄ilmiaarp* and that it is raised by members of this gens because they want information that the bird can give. Again I believe my informant wished to enhance the estimate of his own gens by ascribing to it a relation which may rather hold for the whole tribe. Wild mocking birds tell when the daylight, months, and seasons are near. Fledglings are kept in a globular cage (*hapetūl*) of fine mescal fiber cord, twenty or more centimeters in diameter, in the bottom of which is a bed of chamissa rabbit skin (*epa'rlēmī's*), the finest rabbit fur, to keep them warm. When released the bird roosts on a pole above the house, and does not fly off for some time. The owner continues to feed it; when he moves, the bird follows shortly. When a *h̄ilmiaarp* goes hunting, the bird flies to him far from home, perches on his head, and thus rides back to the house. These are good birds (*isa"kwaxa'n*); one takes to them as to humans, because they understand most things.

²⁹ Coleman noted that a Northern Diegueño shaman exhibited a little red feather which he said had pierced the eagle's heart.

^{29a} The Mono dance around a young black eagle two weeks after capturing it, then sell it to another village that they may do likewise (Powers, *Tribes of California, Contributions to North American Ethnology*, III, 398.)

CHIEFTAINSHIP

Organization within the gens is of the slightest. Each had a male chief³⁰ ('kwaipai'), whose principal function was leading the mourning ceremony. The office is generally hereditary, but with an element of informal selection among the possible heirs by the people at large. The prospective chief must be one who exhibits generosity. When his reputation is established, he gives a dance; at this time they call him chief. He must be liberal, even with his wife and daughters if others want to dance with them. If the chief's son was stingy, people would not want him for their leader. A blood relative would be chosen, or, in default, some good member of the gens.

The chief's function was to admonish his gens mates and to make images for the mourning ceremony. He would commonly lead the warriors, but others would slip off to raid on their own account. If one of the latter killed a fellow-tribesman, the chief would permit a gentle relative of the dead man to take revenge on the murderer.

Teekwa'kewi'te (philanderer) was to have been made chief of the h̄ilmiarp gens in succession to Kūlkuwai'. They lived together. Kūlkuwai' wanted the former, whom he liked, to succeed, but he refused. Then the gens took the following members of their group successively as chiefs: Kūrkurwai', Teurawū'r, Xōtmūtc, Kwateikī'te, and Mat'kwī'n, all of whom lived before Jim McCarty's day (prior to 1850).³¹

The first chief of h̄ilmiarp gens that my informant knew was Pilo'n,³² his father's father's brother (nyewi'). He told Jim to note all things well, particularly the mourning ceremony, so that he could some day be chief. Pilo'n was succeeded by Kumpi'r, his "younger brother."³³ As the former was dying he told Kumpi'r that he "gave the chieftainship" to him. He had been instructing him for years; everyone knew what the succession would be. As Kumpi'r was dying, he gave the office to his son (xomai'), Sipa'nkwoxi' (labia minora), who lived to be an extremely old man, dying about 1908. The latter was married for the first time (siñyuwau) when this transpired. He was chief only eight years. He remarried after his first wife died;

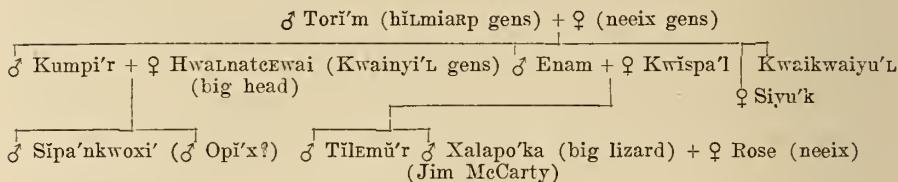
³⁰ The tribal chief and the assistant gens chiefs are modern innovations (compare Gifford, *loc. cit.*, 168).

³¹ This list may not cover any great span of time.

³² Jim does not know whether Pilo'n's father or any of his mother's relatives were chiefs.

³³ This man was a shaman, see page 312.

when the second died, he took a third. She left him. Then he told Jim that he could not be chief much longer because he had no wife to serve him. "You can see that there is not much work necessary to be chief. It is only four days' work (at the mourning ceremony)." Jim agreeing, the others present consented, saying that he was a suitable choice.³⁴ Jim, who called Sipa'nkwoxi' "older brother" (opix ?), was about forty years old and married when he became chief, a matter of forty years ago. Jim gave his first mourning ceremony at Guiyapipe (wiapai'p, a rock leaning on another, or witupai'p, a rock rests on a pillow).



MARRIAGE

As the exogamous gentes are more or less localized, a wife is normally taken from another settlement, but there is no studied attempt at local exogamy. There seems to be no preferential marriage between the gentes.

When a young man desires to marry, he visits the girl's family. If she signifies her approval, he does not approach her, but hunts until he accumulates an abundant supply of rabbits and venison (but not deer hides), which he presents to her parents for their food. Then her parents say, "You see he is a good man; he kills rabbits for us to eat. Why do you sit there, why don't you go with him?" The girl replies, "But he isn't here now; how can I go away with him?" Then should the man fail to come at night, a lad is dispatched for him. He leaves in the morning, his mother or some other elderly woman relative coming to fetch the girl to their home. If it is agreeable, the couple establish their permanent residence in his father's house; otherwise they build a house for themselves nearby. Temporary matrilocal residence is occasionally practiced, particularly when the groom has no property of his own. Should this arrangement prove satisfactory, it is continued indefinitely. Presents of food are informally reciprocated by the man's and the woman's family from time to time. Avoidance of any sort is unknown.

³⁴ I am by no means sure that anyone but our hero recognized him as chief!

Marriage was normally monogamous because a man could not support more than one wife, but occasionally a man had two or three wives (*siŋtoxwū'k'is*, *siŋtoxmu'k'is*, to have two (three) women). It is said that such polygamous unions were confined to the kwatl, tumau', and nixkai' gentes, but this seems doubtful. Plural wives are Southern Diegueño; they are frequently stolen, and it is preferable that they be sisters, "because they are related." Both wives live in a single house on opposite sides of the fire. At meals they sit on each side of their husband (?).

Adultery or maltreatment is a sufficient cause for divorce, public opinion being of little weight in the matter. A woman can leave her husband, their children remaining in the care of another woman, and people will not interfere. Similarly a man can leave his wife. A man will kill his wife's lover if the latter is caught in the act. Otherwise they will fight, though not to kill, with any handy weapons, sticks, or stones. The husband's relatives become angry, but they advise him to leave the woman and not take the risk of fighting. The husband does not destroy his rival's property, but appropriates it; not by way of compensation, but in order to deprive him of his weapons. If a woman thinks her husband guilty, she leaves, telling him to keep his lover. She does not fight.

If a man maltreats his wife, her brothers or father's brothers, but not her father, will remonstrate; if he grows angry, they will fight. A man may beat his wife if she refuses to obey him, but if he beats her too much she may leave him and no one can interfere. Should a wife prove ill-tempered, mean, or cook his food improperly or dirtily, the husband may say, "If you are tired of cooking, you may go home," and she goes. His parents would not interfere. Such a woman may marry immediately; her second husband owes nothing to the first.

RELIGION

SHAMANISM

The Southern Diegueño have curing and rattlesnake shamans, but know the bear and weather shamans only as foreign types. Most of the principal performers in the religious ceremonials are shamans: the other participants have at least some claim to be regarded as such. In fact, my informant does not make any sharp distinction between those he styles shamans (*gwisi'yai*) and the other performers; evidently only a difference of degree is involved. For example, while

he makes no claim to be a shaman himself, as the following paragraphs show, he commands a measure of esoteric power which he uses in orthodox shamanistic fashion. The reasons for the lack of distinction may be that there is no clearly defined mode of becoming a shaman, and, on the other hand, the acquisition of analogous knowledge by all who pass through the toloache initiation.

My father's oldest brother, Kumpi'r, was a shaman. He was a good shaman: as far as I know, he never lost a patient. That was all he did, for he was blind from birth. They brought patients to his house for treatment. He blew down and along a patient's abdomen, as the latter lay on his back on the ground; then he sucked the foreign matter out, u', u"; then he blew the pain away again. When heart or stomach hurt, he sucked the "bad blood" out to relieve the pain. (No incision was made and no blood flowed, however.)

I do this, too, but I know only a little; not so much as my uncle. For some reason I am not so good as he. I have doctored a few here and cured them. One child retained its urine: I did not blow, I pressed its groins to force out the urine. The child was nearly dead but recovered. Sometimes I blow and sometimes I rub, but I do not use herbs much. I have been given the power to cure with my hands. I spit and blow on my palms and cure with these. I feel with my hands: if the patient's body is cold, I rub it until it is warmed. Then when I feel that he is warm I let him go. When I blow upon the ground it smokes far below.

According to my informant, those who imbibe the jimsonweed drink during the initiation ceremony received the powers which the shamans have put into it by blowing (see below). Those who receive many powers become shamans. He attributes his own slight capacity to the loss of these powers during the toloache trance, occasioned by his neglect to cover his face with horned owl feathers and to place raven feathers beside him.

The further character of his beliefs concerning himself are revealed by the following incidents. Recently he was seated near his house where his wife was stationed. Suddenly he had a premonition: he told her that a man had died far to the east where the sun rises. He said, "In a few days you will know whether I am telling a fact." She replied, "Yes, your dreams at night always come true, but I do not place much faith in your daydreams." Then he told her to wait until Ramon should return from Yuma. In a few days Ramon arrived with the news that a man had died there. On another occasion, the wild plum bushes near his house told him that someone had died. He was sitting nearby, when the bush came down and whispered to him. He had his back to it so that he did not see it. Bushes were once people; that is why they talk. These plum bushes are his property; they are supposed to tell him. That is why he knows things of this sort.

Some people are shamans by birth. One man, Anúx, known to have been born a shaman, intends to doctor soon.

A rattlesnake shaman is called *wikwisiyai*. I knew an old man, *Tcipalai'*, who was sitting, with his two sons, at Manzanita. He said, "There goes an old man with a basket hat on his head" (he meant a snake). His son said, "You lie; there is nothing there. We are going to look." *Tcipalai'* said, "All right; go and see. Go close to the bush by the draw." They went where he directed them and saw a snake. They were frightened: one ran off, the other ran back. This man was owner of the snakes and could cure their bites. He was a snake. He could talk with them. A snake would come to him to say that he was going off to borrow something. He really meant he was going to bite someone. But *Tcipalai'* would say, "No: you will put me to a lot of work (i.e. to cure the patient.)"

Once I was hunting with him. His wife prepared a quantity of acorn mush. We hunted all day but found nothing, neither rabbits nor rats. When we returned to within a mile from home, we reached a large rock, with a hollow under it, standing near the trail. He said to me, "I have a great deal of mush at the house, but nothing to eat with it. I am going around this rock to get some game: you remain here." He went to the other side of the rock, rapped on it four times with his hand, stamped around it several times, until snakes began to come out of the hollow in numbers. He killed some with a dry stick. I stood by, very much afraid, until I was invited around the rock to see. I saw a great heap of snakes of all descriptions there. Then, when he had taken what he wanted, he told the others to return under the rock. I saw him wring their heads off, wrap them in tanglefoot grass, and tie the bundle with his breech clout to carry home. There he boiled them all in a big pot filled with water. I refused to eat because it was rattlesnake, but the man said it was not; it was another species. But still I refused. Rattlesnakes are not food, so I think that man must be a snake himself to deal with them.

From infancy this man dreamed of curing rattlesnake bites. The faculty grew in him. He remained continent until he was an adult. Then, when a rattlesnake bit a man, he told the people that all his life he had dreamed of curing such bites, that he was now going to try in secret. He cured him. Then he took a wife and continued his vocation. No one ever doubted him, because he always effected a cure when he announced his intention.

When I was young I saw him cure a man at Snauyú'ké (Manzanita). The stricken man was carried to a spot distant from a house (such patients are never treated near houses) and *Tcipalai'* was sent for. Others wanted to watch him, but he forbade them, saying that they had been with their women. Menstruating women were also warned away, for such would kill a patient. Before he reached the patient, he rubbed himself liberally with dust. He sang and danced, circling about the man lying on the ground. He had a thick bundle of white sage in each hand. The man could not see: his vision was darkened. Each time the shaman fanned his own eyes with the sage, first with one hand, then the other, the patient's vision cleared. As he circled he kicked the prostrate man; first on the feet. Then he blew over his entire body. He sat there gazing at him a short time, then he turned him face down, applied his lips to the small of his back, and sucked out some yellow matter, the snake poison. He instructed the others to turn the man face up. He sucked just below the navel and brought out more yellow matter and blood, spitting it out. He repeated the sucking at the base of the sternum. There was no sign of a wound where he sucked;³⁵ perhaps the poison comes out through the pores. He told the man to get up and take a wife: he was cured. Then the shaman went home. The man sat up immediately. He never even swelled from the poison. Eventually he died of old age: he was never ill again.

³⁵ The wound is never incised.

Other men cure snake bites. One, named Arpu's, lives at Manzanita at present. He claims to do it, but I never saw him; nevertheless I do not doubt him.

Old people eat snakes. They do not kill single individuals but go to a den where plenty can be found, "like going fishing."

The Southern Diegueño have no bear shamans (*o'rskwanyewai'*, to have relations with a bear), but know of their existence among the people to the north. The following account is significant in view of this lack. The incidents refer to a Shoshonean of La Jolla, whose identity is unknown to my informant.

This man wanted a woman at La Jolla to receive him. She refused; "You have too much hair, I do not like you." The bear said, "No, I am human." He went into some thick brush and when she passed he told her to come to him. Again she refused. He offered to cover her with the bearskin and she consented. Nothing came to pass, because he was a bear, not a human. This woman bore four children. She wanted to see him, so she thought of him and he came. He was human. He looked at the children: the woman told him to put his hand on them. He asked "How did it happen that four were born at one time?" She said, "These are the fruit of our union." Four months later he told his brother what he had done, but the latter scoffed, "You could not transform yourself into a bear." The man replied that some day he would show him. One day the brother went after wood. The bear man said he would show him. The brother broke off a quantity of sticks and, taking a big load on his head, started home. Then the bear rushed out growling. The brother threw down his load and looked around: there was a bear tearing up the ground. When the brother started to run, the bear caught him, and throwing him to one side, broke his arm. The bear said, "You see that I could kill you, but you are my brother. I told you I could do this, but you disbelieved me. Now your arm is broken for remembrance." Then the bear man returned home, where he stayed one night.

Then he said, "I want to visit the people living far to the south. I will leave my family here." He went south to gather piñon nuts at Picacho mountain in Mexico. People saw bear tracks there, but they soon heard that it was a human who assumed the shape of a bear. They saw his track where he went to water, and where he had gone to another spring (in the foothills?), taken some mescal fiber, and made sandals: they saw the traces. Then he returned to the first spring at Picacho. He had removed his sandals: they saw again where he had gone to water. The people then said that the tracks were not those of a real bear, but of a man who transformed himself into one, so they stopped getting water there.

Two brothers, Kapamha'n and Hwasemū'tc, saw the tracks. One said, "I think it is not a bear;" the other, "It is a bear." "I believe some man made the tracks." The bear man, who was nearby, heard them: "I will show you two, first, that I am a bear, and then that I am human." One day when they went after wood, they saw a jackrabbit. The bear man was near them. Just as they turned away, he rushed out growling, throwing up the ground. He ran at them, caught one, and threw him some distance off, but without hurting him. He said, "I heard you say that I was not a bear: you see that I am. Now I am going to show you that I am a man." He went into the brush: in a short time a man came out and walked away clad only in a bear skin. Those two were so frightened that they returned without the wood.

That man went to Matkurkur near Jacumba, and then north to Teauñiyīwa (Henry Chauny's house) at Laguna. There he met Titlyau, who said the former was a bear, for he saw the tracks. Titlyau went to Lauxa at Guiyapipe, where they

told him that they had seen bear tracks. He said, "Yes, he has been everywhere. I think he is not a bear, only a man. If he is a bear, I will kill him." So he tracked him, carrying a gun. The bear man overheard him and, coming out of a canyon in human guise, met and talked with him. "I heard you tell the others that you intend killing me. Why do you wish to do that: I am human and yet a bear. I can kill you if I wish: I will show you." After retiring to the bushes, he rushed out growling and waving his paws, while Titlyau watched. He returned to the bushes. "Now you have seen me: the best you can do is to return home."

Weather shamans are known from Northern Diegueño and Yuma instances.

MAGICAL BELIEFS

Hair clippings, if not used in the manufacture of the cord with which the hair is bound, are burned, for should their owner die he would cry to see his hair blowing about. Another reason for burning them, and nail parings as well, is that a shaman may use them to cause their owner to become insane and die. A man gathers his wife's combings for this reason and also because the shaman may attract the wife. A shaman may gather the dirt in which one spits and place it on a red ants' nest so that the victim will die of "tuberculosis." Or he may gather the dirt which has been urinated on, or the faeces, thus stopping the functions of the bowels, when death ensues.

Arrowheads are placed under rocks about the camp to prevent its inmates being bewitched. Shamans are the only persons who wear them, with the same intent, during a dance. They are suspended by a cord about the neck, hanging either on breast or back, or worn over the heart.³⁶

Cigarettes (*ilwitca'te*) are made from short lengths of elder (*kopōL*), from which the pith is removed. One end is plugged with a little ball of milkweed fiber and the tube loaded with tobacco by filliping the side with the finger nail. One smokes such cigarettes to cure a cold or cough, singing the following song four times, by which time the pain and mucus have disappeared:

Ko sa mi xa no
I am sick with a co'd
arṭc mi yai
groan
arṭc mi 'kwīlp
tossing with malease.

When a man sneezes (*wiš's*) a girl is talking about him.

³⁶ Arrowheads are not charms against the lightning; in fact, there are none known.

INITIATION CEREMONY

The toloache ceremony is called *horloi'*, although this is properly the name of the dance which accompanies the administration of the drink.

Perhaps only a small proportion of the men drank the jimsonweed; those who wished to learn to dance and sing. Some men never drank it, and it was never given to women. One woman, L̄imas, was initiated by the Hakwate. (Luiseño and Cupeño Shoshoneans of La Jolla and Hot Springs), who gave her but a small quantity to drink. She can dispense it to men or women, but she never has. Jimsonweed is taken but once in a lifetime. A morsel of the root is held in the mouth while playing peon, for it causes one to guess better.³⁷ In case of a narrow escape from danger or sickness, an impromptu performance of the *horloi'* dance is held in order to restore one's luck. This dance lasts half the night.

While it was stated that the ceremony is given by the gens, what is probably meant is that it is given by the inhabitants of a particular locality, among whom one gens would naturally predominate. A member of any gens whatever might be initiated if he desired.

Boys who have reached maturity and even grown men are initiated. As many as a dozen or more might partake at one time, but it is preferable not to have too many, because it is necessary to have old men to watch them during the entire period.

The ceremony is held at some convenient time during cold weather. It is said to continue through "four nights and days," with the administration of the drug on the fourth night, but I gather that the program is nevertheless very free. The first day, people simply gather to feast. Each night is occupied with dancing, the performance beginning late in the day and lasting perhaps until dawn. The jimsonweed is given only at night: if drunk during the day, one's ears would burn up. The drinking rites may be followed by the fire ceremony, which occurs on this night alone. Several days later (two, in one case) the ground painting is made and the attendant tests performed.

When I first learned this dance there were a number of Northern Diegueño at Xawi' (tule) at Vallecitos. At this time my people did not know the dance, although the Northern Diegueño did.^{37a} I was a grown man: that is why I wanted

³⁷ The leaves are not chewed as among the Havasupai and Apache.

^{37a} DuBois (present series, VIII, 74-76, 1908) implies that the Southern Diegueño received the cult from the north only within the last two or three generations.

to learn. The shamans there were Tasmi'te, X·ai'fm, Wuna'u'n, the oldest, Teowa'l, and Karo's, the greatest of all; all were Northern Diegueño, members of the lya'tcarp clan, which was holding the dance. Other shamans present were Naxamai', Ina's, Kopasw'r, Kwö'ktokö'k, and Sönso'n, of whom the first three belonged to lya'tcarp and the fourth to kwainyi'L gentes.³⁸ X·ai'fm was the leader (kwaipai) of these shamans; he was not the chief of a clan. He made speeches before the dance began and again before the toloache was administered. When I arrived I asked him if I might learn, to which he agreed. I did not pay him. Late in the afternoon, they locked me in the shaman's house (ewa'gwisiyai'), so that I was forced to fast. This was a long house, with a peaked roof rising to about the height of a man, and provided with a door in its northern end. Ina's came just after dark to ask if I was asleep. I said, "No," he said, "Do not sleep." He said that because they were to give me the jimsonweed (malkapi') at midnight. I heard them pounding it.

The mortar (*kalmu'*) is made of soapstone, with a cavity 15 cm. in diameter and a hand in depth. The soapstone pestle is 30 cm. long. X·ai'fm, the owner, kept them with the clay drinking cup (*sukwi'nemat*) in a cave south of Vallecitos, whence he fetched them when the ceremony began. He told the hiding place to some other shamans, among them Tasmi'te, against his death. Anyone who entered that cave would sicken and die. These objects were not painted for the ceremony.

The shamans formed a circle about the mortar and growled. They peered and then blew into it. Wuna'u'n, called *wexapsu'i*, the blower, who was seated to one side, cried "Waŋwaa" four times: after each shout the others cried "Xaa" into the mortar. Then they sat back while Tasmi'te pounded the jimsonweed root. Only that root is taken for this purpose which points to the north; it is 15 cm. long. It is gathered afresh for each ceremony by the one who is to mash it. Tasmi'te pounded for a time, chanting "teoka (I pound?)" with each stroke. Then he stopped while Wuna'u'n cried "Waxuŋa," and the others answered, "Xaa." Again Tasmi'te pounded, crying "teoka yuni," and the pair of cries followed. Pouring water into the mortar Tasmi'te sang:³⁹

kwí si mai měn e mai a no
kwí si mai měn e mai a no
hai ku ra ně tea
to re mo moŋa moŋa moŋa
e si pema'r towim moŋa moŋa

The others joined after he had begun the song. Whenever they stopped, the two cries were repeated. The shamans groan thus into the mortar in order to breathe their powers into the drink. Tasmi'te then poured it, about a pint, through a basket strainer (*sukwa'l*) into another vessel. Thereupon Wuna'u'n cried "Waxuŋa" four times, while the others answered "Xaa" into the vessel.

Then Naxamai' led me from the house, saying that everything had been prepared. I was seated on the inverted mortar facing north.⁴⁰

³⁸ These four may be Southern Diegueño: the fifth is an *itlkipa'*, a Northern Diegueño.

³⁹ This informant had the same difficulty in giving the words without the air, that has often been commented on.

⁴⁰ This account would indicate that he was initiated alone, but in describing the later tests, he speaks of two fellow-initiates. This may mean that he drank toloache twice: once near Vallecitos, here described, and again at Manzanita, as a partly understood statement would also imply. It is possible, however, that the three initiates drank separately during the same night, or even that the other two are figments of his imagination, invented to bring out the penalty of failure in the tests.

Two lya'tcarp women, Yuly^Ema's (little eyes)⁴¹ and Sawe'l (Isabel), stood on opposite sides of me within a ring of shamans. All faced north except the women, who faced me.⁴² These two women told me what to ridicule; to dance to ridicule the deceased members of the Neeix gens; to wit, Hama'rl, 'Kwasteu'tc, Aleeix, and Kötckwil.

Tasmi'tc set the vessel directly before me. I was expected to gaze right into it. Yuly^Ema's then told Wuna'u'n to come close in front of me. He cried "Weee" four times, each time Sawe'l replying with the same cry. Tacmi'tc gave the vessel to me. I held it while all cried, "Wisi'x·aiya, wisi'x·aiya (he drinks it);" then I drank. Again they cried and I drank. Four times they cried and it was finished. Then Naxamai' led me back to the house. Everyone was ridiculing me while I drank: another time I would reciprocate.

In general, when several boys are to drink at one time they are brought to the dance ground in a body. Before they arrive, the shaman to the north (Wuna'u'n in the case above) slightly raises a sack (*k*üpuhwa') of tobacco, which lies near the fire north of the mortar, four times. When the shaman to the south cries, "Weee," he raises it on high four times, crying, "Weee." The boys walk to the dance ground; and, dividing into small groups, enter on the north, south, and east sides repeatedly. Each elderly sponsor (informally called *k*üpaeu, caretaker) leads his charges to the north shaman, then to him on the south, and finally back to the fire where the boys remain standing. They are then seated in a semicircle about the mortar. All face north, for they are afraid of the south. (According to another statement, they sit to the east, with the man who administers the drink at the northern end of their line.) The boy at the eastern end of the line receives the first drink, the next finishes the preparation; for each mortar full is supposed to furnish two drinks. The second cupful, made at the same time as the first, is given to the third, fourth, and fifth boys, if there are that many present, care being taken that each receives a third. All the while a woman opposite them (both northeastern and western sides are specified) is singing and dancing. She cries, "So and so is going to drink." Shamans near her shout, "Wisi'x·aiya (he drinks it)." A group of shamans move around the dance ground dextrally, waving owl plumes, taken from their head-dresses, up and down. They cry, "Xaa, Xaa," while the boys drink and afterward whenever the leading shaman cries out. A woman standing opposite the boys, who has that function (the same woman

⁴¹ This may be the woman, Lyimas, mentioned above.

⁴² Usually the two shamans, who are stationed to the north and south of the performers, have each a female singer with them on the fourth night. After the boys are brought to the dance ground, all four proceed to the east side where they stand to supervise. The two women mentioned in the paragraph above correspond to these two singers.

as above?) cries "Weeit": two men then take the first boy to the fire. With each succeeding cry, two more men lead another initiate to the same place. Each pair then promenades and dances around the fire with their charge. When the boy becomes so dizzy that he cannot proceed, one man takes him on his back, in such a fashion that his face is upturned, and continues the dance about the fire. Finally, when the boy has almost lost consciousness, he is carried into the house.

After the drinking rite, the small boys who have gathered at the dance are sprinkled by the man who prepares the drink with a small brush dipped in toloache. This is by way of a preparatory initiation.

To resume, they built a big fire in front of the house after they left me. Naxam ai told me, "If you feel dizzy, strike on the house, so I will know to enter and care for you." I said that I was all right, although I felt the effects immediately. I could feel my heart beating hard. I sat up and, although it was dark, I thought I saw the ground moving; so I rapped on the house. He came in and out continually to watch me.

Finally he led me out to where the shamans were gathered about a big fire of mesquite. I could not see well, but I saw a big fire. Naxamai' and Ina's held me by the arms (those two were not related to me) while we circled the fire in the lead of the shamans. We circled three times in a clockwise direction and had nearly completed the fourth circuit, when I fell down in a stupor. They carried me to a shade nearby, where all watched me, even the women, to prevent me from running away. Near dawn I woke and looked about, but everything was strange. Everyone was still dancing. They had extinguished the big fire with hands and feet (see fire ceremony below) and built a smaller in the same place, so that they could dance until daylight. There were two singers, Matxau and Kwitci'e'l, who were not shamans. After I looked at the dawn I gazed at the fire; it appeared blue, the people about it looked red. Then they dragged me again around the fire. When the sun shone, I regained possession of my senses for a moment but again relapsed. This condition lasted all this day and the next night. The next day they said that they were going to have me dance again. Some said that I would not be able; that I would dance into the fire. But I said that I could dance all right. I remembered: I danced the whole HORLOI' perfectly. All were pleased, so I returned home the following day.

(After the boys have recovered, visitors from other localities usually sing their songs so that they may learn them.)

Two days after drinking, when I recovered, they led me in the daytime from the shade to the dance ground in order to show me the ground painting. First my entire body was painted black with charcoal, then placing a morsel of salt meat in their mouths, they blew a little saliva on me. The ground painting was made and explained by Xai'fm. The central figure (*a*) represented Hatotkeu'r, the Milky Way, those on both sides local geographic features, and the outer figures, the constellations, as follows: (*b*) Wi'toloi, Viejas mountain near Descanso, (*c*) Xiwi', a rock in the ocean near San Diego (the Coronados?), (*d*) Wikaiyai', San Jacinto mountain, (*g*) Wikemü'n, Picacho mountain in Mexico (*h*) Sahai', a mountain east of Picacho mountain (*i*) Xatai', a spring nearby, (*j*) Pömiyai' ha'rpé (Pömiyai's, a spirit's, entrance?), east of Xatai', (*k*) Xakwinnymecöp (white water), far east of the Picacho, (*l*) Cilük, a constellation (*m*) Ci'i, the constellation "Buzzard," (*n*) Amu', the constellation "Mountain sheep," (*o*) Koxo'a'p, the jealous star,

and (*p*) Xítca', Pleides. The Milky Way was represented by a braided cord of milkweed (ahorL) fiber, four fingers in width. The mountains and stars were indicated by piles of variously colored seeds: gray seeds of the flax (üpcí'L), red from a bush 30 cm. tall (owa'L), pink from a waist-high bush with red blossoms (matapa'), white from a vine (Ekwai'), black seeds from the "live forever" (kwítlyinyau') used for *o*, and black seeds from a similar plant bearing thorns (pílmol) used for *p*. The pile *b* and the line *e* were marked with white earth (matn'ymcöp); the line *f* with red owa'L seeds. No circle was drawn about the figure.

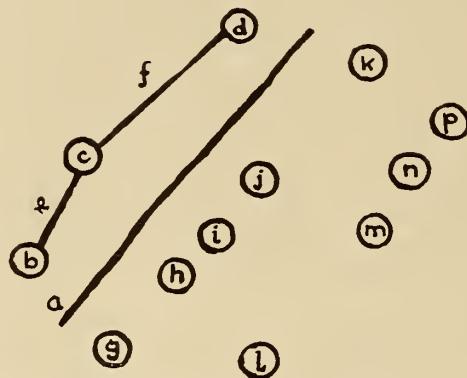


Fig. 1. Ground painting, as explained on page 319.

Near the ground painting, on its western side, was the jumping ground (matwa'a'r), a rectangular pit running north and south, 125 by 45 cm. at the mouth, and about waist deep. The shamans sat about it. I crouched on the southern side with my big toes on the edge while resting one thumb and forefinger on each side of the pit. Wuna'u'n cried, "Hui," four times; then I jumped clear to the opposite end. I had practiced with two leaps to reach my position at the pit. A man stood on each side to catch me if I fell into the pit: such men never assist the initiate, however. Should a boy fall back into the pit, he will soon die.

The old man who cared for me then led me forward and back a few meters to stand toeing the testing circle (matlha'tcaho'tpa, ground —) to the northeast of the pit. This is a circle, 30 cm. in diameter, drawn on the ground, with a small hole at its center. I was given a morsel of heavily salted meat to hold under my tongue to induce the flow of saliva. I stood erect, toeing the circle, with my hands behind my thighs, and dropped the spittle into the hole. If a boy misses, he will soon die. Two other initiates were present: one fell back into the pit; the other failed in his aim. These two are now dead, while I, who was successful, have lived to an old age. These three things were destroyed four days later.

Then I was led back to the shade, where I was given a small piece of mescal, although I was extremely hungry. During the time I fasted and thirsted, I wore a belt, braided of four pieces of "quinine weed" (xakwex·a'r), which makes one feel replete. Those who care for the initiates and the pair of women singers (p. 318) fast each night, but eat in the morning.

When I drank the jimsonweed, I saw the horned owl (a'u') and the raven (xatai') in a trance. I dreamed of these because their feathers are worn in the headband during the horloï' dance. These two looked like men, as we believe them to be. I dreamed of many things at that time, but I only remember these two. After I

returned home, I slept. I should have covered my face with owl feathers and placed raven feathers at my side, but I failed to. Raven and Horned Owl spoke to me in my sleep: they resembled humans. Raven said to Horned Owl, "I believe he does not like our way." The latter replied, "Yes, let him go: let us not teach him the other things that he should learn." Two days and nights passed in sleep; during this period I could hear the powers within passing out by my ears. I heard them plainly. So I no longer had knowledge: all I could remember concerned only Raven and Horned Owl. After the powers flew out, my whole body felt light and active; before that it had been heavy and gross. One sees these things because the shamans have blown their powers into the drink; those who thereby receive many powers become shamans. I also saw Coyote in my dream. I asked him, "What now?" and he whispered, "Another shaman is coming to bewitch you. You will die in four days." I told him that he lied, but Coyote repeated, "Yes: you will die in four days' time." But I am not yet dead. No one believes Coyote; he is such a confirmed liar. Coyote resembled a man except that his ears were those of a coyote.

The animal seen in the trance is the "pet" of the visionary: he is one of his own people, his friend. He is not supposed to kill such animals: I do not kill ravens or horned owls. Should he desire something, he consults the animal. Shamans who wish to cure talk to the animals in their sleep and learn the herbs, etc., wherewith to cure.

FIRE CEREMONY

The fire ceremony (*au'etasi'phis*, extinguishing the fire) is said to have been derived from the Shoshoneans to the north, who in turn received it from the great snake, *Mattjawiit*. It is held only at night, following the *horloi'* dance, that is, the administration of the jimson weed. Its performance is undertaken when those present believe that there are a sufficient number of shamans present at the *horloi'* to succeed in extinguishing the fire.

Only shamans, those who took part in the initiation rites, participate in actually extinguishing the flames. They wear six plumes thrust upright into the headband in such a manner that the feathers nearly obscure the face. These plumes are composed of bunches of horned owl and raven feathers fastened to short sticks. The headband (*hwatl tokwi'n*) is made of twisted, frayed feathers from the same species.

Two circles of men and women are formed, with hands joined, facing the fire. The inner circle comprises shamans for the most part; the outer, unimportant people. They dance in a circular course, stamping, not shuffling, singing *horloi'* songs. Two shamans sit on opposite sides of the fire (probably outside of the inner circle) crying, "Xaa, xaa." The shaman on the north supervises the outer circle; the one on the south, the inner.⁴³ During the dance each taps two

⁴³ Possibly the jurisdictions are confused, since the northern shaman is the principal leader.

sticks together: those of the northern shaman are carried part of the time by a man in the inner dance circle. Two other shamans are located on the east and west sides, respectively. Each moves to the northern man, then to the southern, and finally back to their stations, crouching as they walk and crying, "Xaa, xaa."

The outer circle moves dextrally, the inner sinistrally through four circuits. At the cry "Wip, wip," from the northern shaman, repeated by his southern colleague, the direction of dancing is reversed for four additional circuits. When the northern director thinks that the dance has continued for a sufficient time, he signals to the man carrying his sticks in the inner circle to rush out to the west and tap them together as a signal for all to sit down. Immediately the shamans proceed to extinguish the fire with their feet and hands, the outer circle crowding in on these performers, singing the while. If the northern shaman observes that the shamans cannot control the fire, he leaps into its midst and sits there facing east, south, west, and north, and then emerging resumes his place to the north watching the others. When he is on the fire, he is thinking how he is going to extinguish it.

According to another statement, the shamans first squat (not seated on the ground) about the fire, with the two directors forming part of their circle. They first push the ashes together with their feet. Each carries a wooden wand: that of the shaman on the north is a bullroarer, being attached to a milkweed (*ahorln'yimeo'p*) string. The northern shaman cries, "Wawa η aa," the others, "Waa," whereupon all jab their wands into the coals. They then circle in single file counterclockwise around the fire four times, crying "Waxaa." On the fifth circuit, the circle is broken on the west side, half returning clockwise for a complete circuit, while the others continue, until they meet again on the west side, when the whole group again circles counterclockwise four times. The shamans on the north and south stop at their original stations. Suddenly the northern shaman springs onto the bed of coals. The others immediately rub and pat the embers with their hands, breathing and beating with their headplumes on them until they are extinguished. The plumes are not scorched. They spit "blood" on the fire, but not on their hands.

The swallowing wand ('kwahw \ddot{o} teo'o'ka, blood, to insert) is not used, but Coleman has seen it among the Northern Diegueño of Santa Ysabel, where a shaman drew a long feather from his throat with which to beat out the fire.

The shaman's wand ('kwotō't) is made of pine; shaped much like those figured by Waterman,⁴⁴ pointed at one end and flaring at the butt; about 75 cm. in length, 5 cm. in width, and flat, but 0.5 cm. in thickness. Near the butt end is a band of sinew wrapping, under which owl feathers are caught, with those of the yellow hammer in addition on each broad face. All these wands, or at least those used at my informant's initiation, were derived from the Shoshoneans of Warner's Hot Springs. The one which served as a bull roarer came originally from the same people, who gave it to the Northern Diegueño of San Felipe. It was brought to Vallecitos for this ceremony by Kwistu'c, a member of the neeix gens. This wand is said to resemble the broadest example figured by Waterman:⁴⁵ it was plain and had a stone arrowhead inserted in the butt. Another short wand, painted black and lacking the arrowhead, was brought at the same time, but the shamans fearing to use it, hid it at some distance.

RIDICULING CEREMONY

The precise purpose and procedure of the stereotype ridiculing which is an integral part of these ceremonies is far from clear. During my informant's initiation, he was instructed by two women to exemplify by his dancing the ridiculing of the dead of a gens to which neither he nor they belonged (see p. 318). At the same time, everyone ridiculed him while he drank the toloache; for his part, he had every intention of reciprocating on an appropriate occasion. Ridiculing also formed the subject of a definite ceremony, as illustrated by the following account.

I was working at Pílkeru'k in the foothills near the desert for a bolt of calico. I went to Snau'kwitū'n at Little Manzanita in order to give it to 'Kwiarau'. But he died at Milkwīlnuk, Long Canyon near Carrizo, before I arrived. Paiyū'n, Ikwiltū'k (white wood), and Aturpau', all, like myself, members of the hílmiarp gens, were there. During the day we hunted rabbits and prepared food. When we were sated, we were ready to dance. At night we four sat about a small fire, shaking gourd rattles (xalma'r) while we stamped and sang. We sang about 'Kwiarau', of the neeix gens⁴⁶ (the one ridiculed is called oyau'pe), because we liked his people. We ridiculed them. He was not related to any of us: we do not sing if the deceased is a relative. We mocked the mourners in this song:

mi no sok	hariyaux	
let alone	desist	
mi no sok	Inyapniyaux	Inyaphayaima'ha
	I do not like	dance about one

⁴⁴ Present series, VIII, figs. 1, 2.

⁴⁵ Loc. cit., fig. 1, no. 4.

⁴⁶ He stated that hílmiarp and neeix are the only gentes which ridicule, but this is doubtful.

mi no sok	hiltamokau'a	towa'rowar
	cut off hair	extremely tired
onyaiyau'hite	hapiloyau'hite	matami'inpá
you look pitiful	you know how to paint yourself	all cry

A man or woman, particularly the latter, might strip off all his clothes in order to make the ridicule stronger. If a member of the ridiculed gens is present, he cannot become angry, but in time he will reciprocate.

On this occasion, I wanted to dance four nights, but a woman died there, so that we danced only for two nights, continuing until daybreak on the second. Then I cut the bolt of calico into short lengths which I distributed to everyone at the dance. We burned the woman nearby during the next forenoon, and wailed for her through that and the succeeding day. We then washed ourselves over the ashes of the pyre and destroyed the vessels which had contained the water, on the spot. Otherwise, we should have been visited by this dead woman.

WHIRLING DANCE

The whirling dance (*típkwirp*, to spin in a circular course) is not characteristic of the Southern Diegueño but of their northern congeners. During my informant's boyhood (1840-1860) it was not customary for the southern people to attend this dance, with the exception of one man, Matxan, of the *l'a'tcarp* gens. The account which follows was obtained from Will F. Coleman, a Northern Diegueño half-blood. It differs from Waterman's account in some particulars.

The dance is held at only one time, on the morning following the fire ceremony. The chief shaman swings the bull roarer once as he faces first the sun, then south, west, and north, in order to summon the other shamans ('kwotöt ari'ra, to call with, or swing, the wand). All these join him at the dance ground. The chief shaman, who keeps the ceremonial regalia in a house to the northeast of the dance ground, gives the necessary paraphernalia to the two performers, who don them in the ceremonial structure (*n'i'iayau'we*, feather house) north of the ground. The dancer is painted with stripes of white ashes, red, blue, etc. He wears a kilt (*nipxai'*) of eagle feathers closely strung on a cord. In each hand he carries a wand of hard burr oak (*samtai'*), 40 cm. long, flat, roasted brown, and painted with red iron oxide. His fellow carries two similar sticks: he wears the headband and plumes used in the fire ceremony. A bunch of eagle feathers hangs from the rear of the headband by a cord, 8 cm. long.

The associate runs from the ceremonial house, crying, "Aaa," tapping his wands together, circling by the west to stand at the east

side of the dance ground. He taps^{46a} three strokes three times, stopping to cry between each trio. Meanwhile the chief shaman stands before his house. The dancer then runs, crouching and waddling, from the ceremonial house to the center of the dance ground. Here he first faces south, west, north, and east, runs to his associate, before whom he stands, resting on his two wands, while he listens to the associate sing three or four songs in a low voice. The associate taps twice, thrice, and then a repeated series of three strokes. The dancer trots around the ground three times in a counterclockwise direction, while the shaman swings the bull roarer three times. Two female singers are seated to the northeast, where other women join them to sing. When the dancer reaches the southwestern side, he faces the women, grunts, taps his sticks together, then trots circling in a counterclockwise direction again for three circuits, holding his wands by the middle. As he passes his associate, the latter taps his own wands: after the fourth circuit, the dancer passes him a short distance, when the latter taps and the former taps in answer. Then the dancer continues his dextral circuit, spinning in his course. The associate grunts and taps twice: the dancer stands before him resting on his wands.

When the associate thinks that the dancer is rested, he taps; the shaman begins to sing softly; the associate taps again, and the shaman sings louder; the associate taps thrice, the dancer then replies with two strokes and resumes his trotting circuit of the ground. The associate taps again and the dancer jumps from side to side as he passes him, resting on his wands at each leap. Each time he jumps the associate cries, "Huu, huu," and taps; the dancer answering with taps. The latter next jumps as he passes the shaman; he and his associate tapping again in an identical manner. He circles in this manner four times: after he has passed the associate on the fourth circuit, the latter taps, to which he taps in reply, and then proceeds to spin through two circuits. The associate then commences to tap rapidly and follows the dancer around for a half-circuit and out to the ceremonial house.

In this connection, the informant stated that the bull roarer is hung over the entrance of the ceremonial house to protect its contents, after the regalia have been replaced; hence it is called

^{46a} While the Southern Diegueño do not tap sticks together in their dances, this is said to be the common habit of the dialectically related people of Baja California.

wa'a'kūpcau', house watcher. The house has no door, but the bull roarer is considered to close it effectually, for no one, save a shaman, will enter, else he will fall stricken, or ultimately sicken and die. This statement may also apply to the Southern Diegueño.

ECLIPSE CEREMONY

The eclipse ceremony begins, either in the day or at night, as soon as the sun or moon enters the shadow (*iňya' wisau'*, nibbles the sun; *hitlyá' wisau'*, nibbles the moon). No explanation is given of what it is that devours these bodies. The chief begins to sing the song of the people (*teayau' mitipai'*). Young and old shout, because they are perturbed, since an eclipse causes sickness. After this ceremony, they bathe in cold water. There is no corresponding ceremony on the occasion of the new moon, as among the Northern Diegueño.⁴⁷

COMPARATIVE OBSERVATIONS

While these field notes are too scanty for any definitive statements, they offer a number of tentative contrasts to the published Northern Diegueño data. Even if other ceremonies of which no details were recorded, viz., the image,⁴⁸ eagle (which may be included in the image ceremony), and girls' adolescent ceremonies,⁴⁹ are added, no ceremony unknown to the Northern Diegueño is found. On the contrary, not only are their ceremonies the counterpart of those of the northern group, but they are fewer and slightly less elaborate. There is nothing indicative of a greater degree of borrowing from the Mohave and Yuma.

It is also probable that the Chungichnish doctrine, known to the northern people, is only slightly developed here, since no systematization of the religious material was offered by my informant.

The larger differences are the absence of weather and bear shamans, the whirling dance, and the clothes-burning ceremony, although this may be combined with the image ceremony. The specific form of "war" dance is not known, but the dance at the boys' initiation (*horloj*) is clearly its analogue.

⁴⁷ Waterman, *op. cit.*, present series, VIII, 328, 1910.

⁴⁸ See Edward H. Davis, The Diegueño Ceremony of the Death Images, Contributions from the Museum of the American Indian, Heye Foundation, V, no. 2, 1919.

⁴⁹ Horatio N. Rust, A Puberty Ceremony of the Mission Indians, American Anthropologist, n.s., VIII, 28-32, 1906.

Some of the minor differences, other than those noted in the descriptive accounts, were made the subject of specific inquiry. The ridiculing songs of the initiation ceremony and other occasions correspond to the "bad songs" of the Northern Diegueño girls' adolescent ceremony. There is no use of water as an emetic at the conclusion of the toloache dance; the boys are not bathed, nor are they painted at the same points⁵⁰ or in the same manner; there is no crawling with dragging poles, no delousing, no placing of hunger-belts in the creek, no footrace, nor are plumes and wands received at this time. No animals are shown in the ground painting, no netting figure in the jumping pit, and the procedure is different. In fact, the whole Southern Diegueño ceremony appears to be curtailed, particularly in the observances following the administration of the drink, in contrast with that of the northern group. The horloi differs from the northern "war" dance in that there is no shaking of fists; nor is there any at other times. The southern fire ceremony lacks speeches, sword-swallowing, the willow-bark drink, and vomiting (although these are known by hearsay), and uses no rattles. The northern people do not stab the fire with wands.

The cultural position of the Southern Diegueño in ceremonial matters is clearly one of dependence on the northern groups, both their relatives and the Shoshonean tribes.⁵¹

SONG CYCLES

Most song cycles are derived from the mythical serpent (page 331), others are more recent acquisitions, according to native theory. For convenience the Mohave and Southern Diegueño song series cited by Kroeber⁵² are also listed below.

<i>Mohave</i>	<i>Diegueño (Kroeber)</i>	<i>Diegueño (Spier)</i>
Birds ⁵³	hasa"tcio'x (bird song)
Av'alyunu		
Alysa		
Tumanpa	Tu-tomunp	toma'np (bird starts to fly)
Raven		
Salt	Salt	
Turtle		
Deer		

⁵⁰ The analogy between the white powder blown on the northern boys and the Mohave custom of blowing frothy saliva, suggested by Waterman, *loc. cit.*, 297, footnote 58, is borne out by our data.

⁵¹ It may be noted in passing that I see little that the Southern Diegueño have in common with the Havasupai that might be called "Yuman characteristics."

⁵² MS Indians of California.

⁵³ Isa means "bird."

<i>Mohave</i>	<i>Diegueño (Kroeber)</i>	<i>Diegueño (Spier)</i>
Eagle		Ispa' (eagle)
Kwiya-humara	Kuya-homar	
Shaman's		
Orup		orú'p (sad)
Keruk		
Kachahwar		xax·wa'r (scraping drum ⁵⁴ stroke)
Awi-kunchei		
Akwil		
Hortloi		horlo'i (dust around fire)
Tuharl		toxa'r (vibrating rattle)
Tipai		tipai (people) ⁵⁵
Isa ⁵³		
		djokwa'r (speech)
		tasí'tL (to rattle)
		xěltamataie' (hair on top of head)
		nyímitceohís (wild-eat song)
		parhauítcio'hís (fox song)
		nyíkwar (bird resembling the sandhill crane)

Although orú'p and teaihotai' (big song) were first given as names of series, it was stated later that they were only songs occurring in series. Fox song belongs to wild-eat song as "a sort of chorus." The eagle song is sung as the captured eaglet flutters, shaking off his down, in the mourning ceremony. Fox, wild eat, bird, and nyíkwar were obtained subsequent to the mythic serpent incident. My informant's gens (*hilmiarp*) received rattle, speech, big song, basket scraping, and eagle songs directly from the serpent. Tumau' gens got the vibrating rattle and hair-on-head songs. In the same manner the Mohave obtained toma'np. The Southern Diegueño borrowed tipai' from the Shoshonean Tutlipa of Santa Ysabel and horlo'i from the Shoshonean 'Koxwai (San Luis people of Pala), each of whom had received their songs from the serpent. Kuya-homar, given in Kroeber's list, was recognized in the form nyíman-kumar, which is the same as toma'np.

MYTHS

ORIGIN MYTH⁵⁶

These hills were always high, but in those days there was salt water on both the west and east sides. A man emerged from the sea, and opened his eyes so that he could see the sun. Then another man

⁵⁴ Undoubtedly scraping a basket was meant.

⁵⁵ The Kamia equivalent is Pi'ipa, which means "person" in Mohave.

⁵⁶ A variant of the myth given by the same informant through the same interpreter to Gifford (present series, xiv, 170-172, 1918).

emerged, but he could not see the sun, for he was blind. There were two foxes, a silver fox and a common fox, which belonged to these men. The blind man felt about for his property, the silver fox, but failed to locate it; instead he felt the common fox. He asked the other, "Is this my fox?" to which the latter replied, "Yes, that is yours." Then the blind man knew that the one he felt was not his own. So he made many animals, the coyote, the long-legged birds, and he also made the moon. He showed the other man their reflection in the moon, but the appearance was fleeting. After the latter had gazed at this, he turned to look for the blind man. But he failed to see him, for the ground had opened and swallowed him. The other then went to the sky. Now we hear the blind man down below: he causes the earthquakes. If he were to roll over quickly, the earth would turn over, but he rolls only a little which causes the tremors.

The man above wondered how he was going to make humans. He reached into the earth, in the place where the blind man had descended, to feel for something. He pulled out some red clay with which he made a man, and then a second. Near midnight, he looked down to where they lay by a little fire he had provided: one still retained its shape, the other had fallen to pieces. So he made them over several times. The fire was still burning: the man above said, "I hear some one talking. There must be some one alive down there." The clay-man answered, "Yes." "The man who descended under the earth tried to make human beings, but he failed; so I had to create you. Now that I have made you, I will name you mama.ipadj, man, and mamasij, woman." Then he said, "I wonder what I will do with these two people whom I have made." He watched them. During the night they rose several times. When it was nearly day-break these two fell asleep. He then ascended to the sky, where he is now (*sic*).

When the people were left there, there was sea in all this country. The bedbugs were driven into the sea, so that it has been dry ever since. Then the men above told Wild Cat to instruct the men. The latter then told them how to count the months by lunations.

One of the clay-men, Teikumat, was sick far in the east. But the big birds, Sand Hill Crane (makulk), Goose (laluk'), and Meadow Lark (petlatuk'), flew about, saying that he was not sick. The time he fell sick at Nătcupa'k was the month Lakwō'l: he died in the month Lănyimce'p. He was nearly dead when they brought him here from

the east.⁵⁷ They first took him to Matnaipai, far north of here, in the month *Latai'*; then to Nyiaharp (sun's entrance, probably īnyaharp) in the month *Lapisu'*; then to Matpimyai in the month *La'metinya'*. He was nearly dead when they transported him from there: they took him home again to Nătcupa'k. He died in the month *Lănitca'* (*sic.*). Just before he died he said that he was going to name another month.

The aforementioned birds gathered wood for his pyre, which was complete when he died. He called in all the big blue flies. Then a big fire started (elsewhere): when they saw it, they sent Coyote to investigate. Coyote returned, reporting that it was false, that there was no fire. There was another fire nearby, in the direction of Nyiaharp. Again they told Coyote to go to see if that was a fire. Again Coyote returned, saying that it was false. Then another fire started far east at Nătcupa'k. Again they told Coyote to investigate. While he was absent the big blue flies set fire to the pyre with their fire drills. Badger stood on the east side of the fire, Wild Cat on the west. By the time Coyote returned, the entire body, excepting the heart, had been consumed. As he came along he called to them to take his father's brother (*n^yEwi*) out of the fire. Then he ran in, snatched the heart from the fire, and ran off toward the east with it. Bullet Hawk (*tsaharptsü*), who had been watching, pursued him, but although he struck him several times, he could not make him drop it. Coyote ran on and on to *Wi'iwa'* in the east, until he grew so hot and tired, that he laid it down, having decided to eat it. Then he took it up again and went on to a cave called *Wikisai* (greased rock). Then he carried it farther east to the edge of the sea, where he laid it down gently so that no trace of blood should show on the ground. He started to eat it, slowly and carefully. There was just a tiny drop of blood at the center, which, falling into the water, was transformed into many birds (of a certain variety, having red wings; *machwa'te*, red body. When we lost that great man, we lost all his knowledge; hence we know so few of the arts of life.

Wild Cat took charge of what was left. "I have all Teikumat's belongings," he said. He gathered all the people and started to dispose of the articles. Returning (westward?) from Nătcupa'k he came to *Wikami'*,^{57a} where he decided to burn them all. So he started the mourning ceremony. They gathered wood with which to build

⁵⁷ The narrator was not at his ease during the preceding portion of this story.

^{57a} A big mountain "east of the Chimney Peak (Picacho) and west of the Parker reservation;" probably the sacred mountain of the Mohave is meant.

the enclosure (*kerük*). Then they sent Sand Hill Crane to summon Mat̄iawi't, the mythical snake. He flew along singing, *kerük*, *kerük*, which is his own peculiar sound. When Mat̄iawi't arrived, he coiled his length around the interior of the enclosure. He commenced in the afternoon and stopped at sundown. Then he told them to make it larger. By midnight he had completely filled the enlarged structure, and again he told them to make it larger. He filled this, too, by daybreak. Then Wild Cat told them to set fire to the enclosure. Mat̄iawi't was burned asunder; part flew back to the place he had come from, the rest burst into fragments. Each piece that flew off to the people was a song. Each gens received a song: *djokwa'r* (speech), *teaihotai'* (big song), *orū'p* (sad), *tasitl* (to rattle), *toma'np* (bird starts to fly), *horloi'* (dust around the fire), *tipai'* (people), *xěltamataie'* (hair tied on top of head), *toxa'r* (vibrating rattle), *xax-wa'r* (scraping stroke on drum?), and *ispā'* (eagle). They also got wailing (*wumi'*). That is how I (i.e., his gens) came by *teaihotai'*. The people who had the songs traveled to the north and then around to the western sea. The peoples who acquired the songs were '*kwaxa*', '*kwitca'n* (Yuma), *tumau'*, *lfa'tcarp*, *neeix*, *kawi'* (Cahuilla), *waipu'k*, and *hilmiarp*, my own gens.⁵⁸ From this time they have been separate peoples. All the bushes about here are people. Lizard said that they could not all live together. "If all the gentes live here together, they will die off one by one." That is the end (*yE'a'mE*).

ORIGIN OF DEATH

When those two creators formed people, they also made Wild Cat. The people started migrating from *Wikami'*; their tracks are still in the rocks there. At that time the sea reached the foot of the mountains. The creators told Wild Cat that he would know everything concerning people, and that he should therefore care for them. He first made a big mourning ceremony at *Wikami'* and then led the people westward to this country. Here they scattered as the several gentes. As they traveled, he named the bushes. Among the people was the *waipu'k* gens; they were then called *lakwi's*. The people of this gens were tired of traveling by the time they reached *Mulk'i't*, so they went south to *Xatapil*. Here all the *waipu'k* perished, save a few who then came here. All the others followed Wild Cat, circling northward and westward to the salt water; then, when they found their progress blocked, they returned eastward and have lived here since.

⁵⁸ This list of gentes is incomplete (see p. 299).

Wild Cat told them that there were many people. He said that the country was too poor for all the people to live together. "One woman or man must die each year, so that others can live." But the people said, "No, we do not want to die to make room for others." So they sent for Lizard (*xakwa'l*). He brought a large sack of tobacco. Wild Cat said, "I told these people that some would have to die each year in order to leave room for the others." Wild Cat had sent for Lizard to gain his support. Wild Cat said that the latter was still older than he. Lizard told him that what he had said was proper. Then everyone assented, so that now one or two of us die each year. As the people grew, all the brush and rocks about here grew with them.

BUNGLING HOST

Once Rabbit was Coyote's wife. The red wing blackbirds wanted this woman, too, so they married her. When Coyote saw this, he set off on a long journey. He found a broken willow lying across the trail. This swung back and forth in the wind, squeaking "eh, eh," but Coyote said, "You shan't have anything to do with me." He thought the willow he heard was Rabbit. He came to a house. Then he thought, "How am I to recover that good woman (i.e., Rabbit)?" He carried a brand into the thick brush where he sat down and said, "Now I am going to find out why that woman likes that fellow with his yellow shoulders. I will try to make mine better yellow shoulders than his; perhaps she will then prefer me." He burned his shoulders with the brand to make them red so that Rabbit should say, "Well, this man looks better than the other."

When Coyote arrived at Red Wing Blackbird's house, he found him absent, but Rabbit, who was sitting there, looked at the newcomer. Coyote walked up: Rabbit turned her side to him. "Do you like me or not?" he asked. She said to him, "I will not have you at all: go back." When Blaekbird returned, he asked, "Who was that man who wanted to have red shoulders such as mine?"

Coyote went off by the trail on which he had previously traveled. He reached the willow; again it squeaked. As it dragged back and forth, it caught him by the penis and held him fast. He cried as loud as he could. He extricated himself by breaking his penis off, saying, "I won't go near you any more; I thought you were a good man."

Coyote lived alone. Every day he went about visiting the boys who played about there. Wild Cat had a wife. He invited all his own people and everyone else who lived in the vicinity to a feast. He had a large pot, which he filled with water and set on the fire. He took a large stick (chisel?) which was used for pounding mesquite, and beat his own head with it. Coyote watched him all the while. Every time Wild Cat struck his head, splinters would fly from the stick into the pot. All the people were drinking the soup. Coyote had nothing, but he wanted to impress others, so after he had eaten to repletion, he invited them to a feast at his own house. Wild Cat said to Coyote, "No, I have something else left for tomorrow." He set up a forked pole, up which he climbed and defecated into the pot. Next morning all ate of it, including Coyote. When they had finished, Coyote said to Wild Cat, "Bring all your people to my camp tomorrow. I am going to give a feast." Wild Cat gathered all the people he could and started for Coyote's house. The latter had girls at his house when they arrived. The two parties remained separated; wild cats on one side, coyotes on the other; not mixed, as they had been at Wild Cat's house. Coyote instructed one of the girls to give him some water so that he could set his pot on the fire. He held his head over the vessel while he struck it with a rock. Each time he struck, blood spattered about, until a large puddle was formed. Wild Cat told him to desist. Coyote told them to come again the following day. He set up a forked pole and climbed into the fork. He told the others to place the pot under him. They started to fill it with water but he said, "No." He defecated worms into it until it was filled. When they saw this, they said it was not fit to eat, so they all went away.

Coyote continually visited Wild Cat. Wild Cat said, "I think that you had better come to another feast." Wild Cat told Coyote and his people to find a spot provided with thick brush. When they found the thicket, Wild Cat invited Coyote and his family. Wild Cat stood in the center of the patch and told them to set it afire on all sides. The fire was burning from every direction; when it had nearly reached him, he sang:

ma'tkapois	hoi'kapois hoi
earth	descend
ma'tkapois	hoi'kapois hoi
yua'rmarrup	rup rup rup
descend slowly	bobbing up and down

He sank into the ground. When the fire had died down he came out by the same place and went home. He asked them, "Why don't you eat the rabbits and other animals which were roasted in the fire?" Coyote and his family ate all they could and carried the remainder home.

Next day Coyote went to Wild Cat's house and invited him to come with his people to surround a thicket. They searched for a large thicket. Wild Cat began to understand Coyote: that the latter could not do the things he could. So he warned Coyote that he had better not fire the brush, else he would be consumed. But Coyote said, "Yes, come watch me anyhow. You will get plenty to eat at my fire, too." Wild Cat said, "Yes, I will come to watch you, but I will see you burned instead of seeing things cooked for me to eat." Coyote circled around to look at the thicket. He said, "All watch me closely when I am in the center; you will see what I can do." Then he stood right in the middle. "All right," he said, "now set fire to it all around." Wild Cat stood close to the fire watching Coyote. Coyote sang just as Wild Cat had done on the preceding day. After he sang, he only bounced up and down; he did not sink into the ground as Wild Cat had done. His feet were burned off, and he was consumed with the rabbits.⁵⁹

FOOD GATHERING

Acorns are ripe in the month *Lakwō'L* (September) and fall to the ground during the following month, *Lānyimce'p*. Mush (*cawi'*) is made of the acorns of the black (*ku'pharl*), red (*isnyau*), and scrub oaks (*ixwūp*),⁶⁰ as well as of the seed of the wild plum (*ixkai*). Acorns are gathered by women in their carrying nets (?) and dumped into the storage baskets which stand in the groves on the hills. These baskets are set on posts a quarter meter from the ground and are woven so closely that rodents cannot gnaw through them. The acorns are stored, each variety separately, until *Lānitca'* (February) in the spring when it is warm and the nuts are sufficiently dry. Women and old men crack the nuts on the spot between two convenient stones in order to extract the kernels. The meats are stored in clay vessels and cached in the rocks.

⁵⁹ Coleman told of a Northern Diegueño version in which Wild Cat, having claws, climbs a tree; Coyote, having none, cannot climb, but must jump up and down until consumed.

⁶⁰ These native terms mean both tree and nut.

Mortars (*koxmu'*), mere hollows in boulders or the bedrock, are located at every camping place. The meats are reduced in these with a heavy stone pestle (*xamukai'*). Sometimes a leafy bower is formed of a few long boughs thrust into the ground to protect the worker perched on her boulder. The ground meal is sifted by tossing in a flat coiled basket in such a manner that the larger fragments are shaken over the near edge and under the right arm. When the whole is sufficiently ground, it is heaped into a shallow twined basket, which has been placed on a pad of twigs, in order to leach out the bitter elements. First, cold water is used while other water is being warmed; this in turn is added as the water seeps away. After a half-hour the meal stands in a stiff dough, which is removed by handfuls and stirred into a pot half-full of cold water set on the fire. As it stiffens, more cold water is added. The cooking is completed when its taste is satisfactory. The several varieties of acorns are mixed according to taste.

Wild plums are cracked on the metate with the mano. The meats are spread in the sun to dry until they can be rubbed between the hands and tossed in a coiled basket to remove the hulls. They are then ground in a rock mortar. Leaching proceeds as with acorns, save that only cold water is used. The cooking process is identical.

The metate (*ixpi'*) is a granite slab (one specimen is rectangular, 45 by 30 cm.), with a slight oval depression on one face. The mano (*xapitea'*) is an ovoid stone (one measuring 23 by 9 by 6 cm.). The metate is set level on the ground for grinding, the mano being pushed back and forth with a rolling motion, but not rocked from side to side.

The seeds of a wild plant (*ekwa'rp*, possibly pigweed or goosefoot) are roasted, ground, and made into a mush. The meal is sometimes worked with a little water into flaky cakes, which are eaten dry. The seeds of the white sage are ground and eaten dry, but not cooked; those of the squaw weed (*hiłpō'k*) are either prepared in the same way or made into a mush. The leaves of the nettle are eaten when it is young.

The following list of foodstuffs was obtained from a fragmentary account of my informant's boyhood. It is chiefly interesting as indicating those foods, besides the obvious ones which are not mentioned, which struck him as peculiarly different from those he uses today. Gila monster, jackrabbit, a large lizard (*hamsu'l*), wood rat (*ama'lk*), mescal ('*ama'l*), a sprout-like plant ('*amal*),⁶¹ a seed bearing plant

⁶¹ The first word has raised pitch on the second syllable, the second, normal.

(ha'wl), an oily seed ground for flour (awō'l), wild flaxseed (ōpcī'l), barrel cactus (ixmal, the pulp of which provides water), prickly pear (?), ('kopō'l, when green it is cooked like pumpkin, when ripe the seeds are ground), cholla cactus (ic'te, of which both blossom and seeds are eaten), and the seeds of a high bush (akwai').

Doves (a larger variety, kalyāswi', and a smaller that lives about the rocks, t'lkemu') are not eaten by young people although their elders may. The dove is a person (tipai), but he is disliked. Still this is similar to eating a human being.

HUNTING

When I was a boy I always hunted with my father's younger brother. I was about 1.3 m. tall when he first took me hunting. I had a small bow and arrows, little better than toys. My uncle told me to poke into a pack rat's nest with a long stick. I asked him instead to let me shoot when the rat sat outside, but he said, "No, you can't wound him." I insisted and shot, but the arrow failed to penetrate for lack of power. I cried and shuffled my feet in chagrin. My uncle told me that it was no use for me to try, anyway, because he would not let me eat it. "If you eat the rat, or anything you kill, you will have worms in your stomach." Up to the time I married I never ate what I killed. Others can eat the game, but a boy cannot eat his kill until he is adult. One who refrains is always lucky. When I was a grown boy, whenever I went to hunt, I killed several rabbits almost immediately. But now I see small boys eating the rats and rabbits they kill, and as they do not die of worms in the stomach, I presume that there is no reason for this notion.

I killed my first deer at Wiñyai' in the foothills on the western side of the desert. My wife was with me. At that time I and my people were fleeing from smallpox. There was a herd of five does, a small buck and a larger one, near some small rain-pools. The old buck had fine antlers; he was as big as a bull. I crawled near them; when they caught sight of me they fled, the big buck last. He circled to where the does were; there he stood looking back at me. I shot him in the back with my muzzle-loader, and he fell into a deep hole. I skinned him, cutting down the belly and inside the legs, and around the neck back of the ears. I cut the carcass open from neck to tail and eviscerated it, broke off the ribs near the backbone with a sharp stone, cut up the body and placed it on the hide, which I had stretched out. The carcass was cut into four pieces, each fore-shoulder and the adjacent ribs in one, the hind quarters separately. I piled the meat on a tall bush (ax·p'a'l, a mesquite?) beyond the reach of coyotes. All the while I was hallooning and burning brush to attract attention, but no one came, so I left at sundown. I carried home the paunch full of blood, some meat, and the liver, all rolled in the hide.

But before I reached camp it was so dark that I could not see my way. I found a white man's road with some peculiar tracks, so I fired my musket to attract my people. One old man heard me but he went back to sleep. I did not know where they were so I walked directly ahead. They had little dogs in the camp, but they did not bark at me. I was passing right by, when a woman saw me, and said, "Yes, he killed a buck; he is carrying it into camp." I went on to my own camp. My wife's mother immediately rose and cooked the meat. Next day I borrowed a horse and returned to the carcass. I tied the quarters together and placed them on the saddle. Everyone had meat then; each received a little piece. My wife's mother carried

pumpkin seed and beans to La Posta.⁶² While we were there eating that deer, we held the horlo'i dance (see Initiation, page 316). We danced with an old shaman to see if the smallpox was following us. He said no, so we left, satisfied.

Long ago when I was young I saw many mountain sheep that came close to our house at Xatawir, and climbing on the rocks stood looking at me. They used to be abundant. I was told that they were full of maggots (?). After they told me that the sheep were dying I found them lying dead in piles among the rocks. We dragged one down to the house; its body was infested with little black ticks. They told me to skin it to see if the flesh was good. We found the flesh black. Ever since there have been very few sheep in this country. Then we went to the foothills to gather mescal. Deer tracks were plentiful, but the animals were difficult to kill, so we turned to mescal. We remained there one winter and then returned to Xakwiskū'r on the mountains. My father's brother discovered a band of mountain sheep a short distance north on a ledge. Together with some others he overtook them and killed a big ram which he skinned and butchered.

We left Xakwiskū'r to go to Xaptai' (north of Boulevard). My uncle said, "I am going after a buck." He chased the deer and killed two with arrows before noon. He brought them home. So we decided to stay in this place; it was my home for a long time.

Then my uncle said, "We will go and eat some red oak acorns." We moved west of Boulevard on the north side of the draw. There we all lived together. We made sacks to hold the acorns and hunted rats and rabbits. Each day before sunset we built a fire and lay close to it, because we had no cover. I hunted every day because we had little to eat.

Jim McCarty added the following advice given him by Paiyo'n, the oldest man now living: one should not choose a buck with straight horns but rather one with spreading antlers, because it will not be able to make good progress through the brush when fleeing. Chase a wounded buck in the heat of the day for it will then be exhausted sooner.

A hot day is chosen for a rabbit hunt (*inyaigearx*). A group from one locality, of indiscriminate gentile affiliation, surround and set fire to a patch of brush to drive the animals out, hallooing the while. Arrows and crooked sticks (*xümpu'*) are used. The latter are furnished with a pyramidal point at the end, intended to pierce the quarry. These are also used for mountain sheep. Individuals got only such rabbits as they killed. There is no fixed leader in this hunt, nor has it any esoteric significance.

Nets (*winyip*) of the size of carrying nets are used in hunting rabbits. Several of these nets are set over the runways with cords which, passing through the meshes as draw strings, are entwined in the bushes. When many are hunting together they drive the rabbits into these purse nets; but when there are only few, they set fire to the brush to drive the rabbits.

⁶² The significance of this is not clear.

The trap (*witolū'me*, a rock which slips and falls) is formed of a stone resting in an oblique position on a little post which in turn stands on an acorn. This is used for small rodents, squirrels, rats, mice, or any animal that eats acorns. Snares are not used.

"Colorado salmon" are found in the overflow pools of New river in the Imperial valley. They are shot with arrows (which do not have lines attached) just back of the fins. One has to aim a little under the fish.

HOUSES

Houses are built only for winter use because the building of them is hard work. Summer camps are located under convenient trees. Neither the dome-shaped house nor the square, flat-roofed shade are built; the reason offered for the absence of the latter being that the heavy posts are difficult to cut.

The house ('ewa) is a simple gable set directly on the ground. It is 2 m. long and 1.5 m. high at the ridge (fig. 2,A). Two forked posts (*i'iteekō'l*, forked wood) set up in the middle of the gable ends support a ridge pole (*i'ihopōxtō't*, backbone wood). Poles are laid slanting against the ridge pole on both sides at quarter meter intervals, each let into a separate hole in the ground, 30 cm. deep. These poles are tied at the ridge with ropes of Spanish dagger (*sa'a*) fiber, which never rots. Long branches of chamissa brush are laid horizontally on these rafters (*i'icowi'r*, wood set in rows). Dry tanglefoot grass (*xaiwa't*), which grows 50 to 70 cm. in length, is mashed into a stringy mass, and spread over the brush. A second layer is added to bring the thickness of the roof covering (*towī'pa*, packed) to 10 cm. As the sides rise, they are covered with damp dirt, branches of chamissa brush being first set upright along the slope to provide a rough surface which will hold the dirt. Frequently two brothers and their wives work together, one couple on each side. The ground is dug with a sharp stick and carried in on old basket. The wooden shovel is slower than the basket in such work.

The house always faces east. A trench is dug along the western gable end, in which poles are closely set and tied to the end rafters. Long chamissa brush branches are set upright against the rafters to hold a tightly wedged mass of tanglefoot grass. The opposite end is similarly treated, except for an entrance (*wināl*), measuring 1.25 by 0.5 m., beside the forked post. The jambs and lintel are bound with tanglefoot grass (fig. 2, B). A layer of the grass is bent over

the jamb, the free ends being held between two longitudinal sticks which in turn are sewed together with cords. The entrance is usually left open, but in winter a mat of tules is arranged as a hinged door (*wa'a*). The horizontal reeds are twined at intervals with cords and a stick is fastened down each edge. One stick is tied to the center post to form a hinge; the other may also be tied to fasten the door.

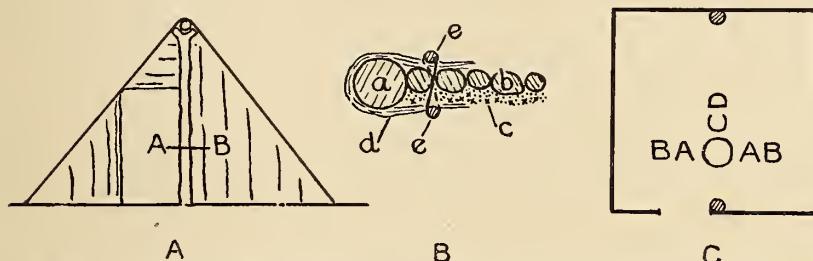


Fig. 2. A, front elevation of house; B, section A-B; a, jamb; b, wall-poles; c, matted brush and grass; d, grass placed over jamb; e, sticks sewed together to hold grass in place; C, ground plan: AA, brothers, and BB, their wives, C, D, a stranger and his wife.

The interior arrangement of the house is shown in the ground plan (fig. 2, c). The fireplace (*a'uenyihala'pe*, where they burn fire) is close to the door; there is no pit. Stone supports for cooking vessels are not placed directly in the fireplace, but to one side. Manzanita roots, chiefly, are used for fuel; they do not give off much smoke; what little there is escapes by the door. For a night fire, two short logs are placed end to end, with the fire between. They are pushed together as consumed. When sleeping out of doors, fires are built on both sides of the bed. Within the house, a man and his brother⁶³ sleep next the fire, their wives beyond them, and their children at head and feet, or the babies are placed between them. A stranger and his wife would sleep back of the fire.

A stranger stands before the house. Immediately he is seen he is invited in, because it is cold. Formerly people took care of their persons. The householders say, *Kexap'*, come in; then *Kepwa'*, be seated; *Xama'l kesau'*, eat some greens; *Cewi'm kema'*, eat it with mush. *Xo*, yes. They set before him whatever they have cooked. As he leaves, *Inya'kepa'rēx iyo'*, I am going on; to which the host responds, *Kiyīma*, go ahead, or *Xo*.

⁶³ My informant curiously referred to the house being built and occupied by two brothers and their families: this does not seem significant.

DRESS AND ADORNMENT

As a rule men wear nothing whatever. Some wear a short, narrow apron of white sage twigs pendant from a milkweed (*ahorlnyimco'p*) cord. Women wear two such aprons, one before, the other behind. Children do not wear even this scanty garb until they are a meter or more tall. A very long rabbit-skin blanket is used in winter for a shirt, poncho-wise. A short median slit is left for the neck and it is tied under the arms.

Sandals are not worn about camp by either sex, but only when journeying, collecting wood, etc. Extra sandals are not carried on one's travels because they can be made in a short time. Sandals are made of mescal fiber or rawhide; moceasins are not used.

A basketry cap (*nyipu'L*) is worn by men and women to protect the top of the head from the strain of the laden carrying net. It is also worn by the women when grinding, the hair being wound around the head and completely covered by the cap, so that it will not fall into the meal. The cap fits the head snugly, yet is somewhat conical. The women's cap is made in diagonal twine, using two weft elements, with simple twining at the edge (*wikwa'*, twine weaving; *wekwōtc*, twine stitch). Both warp and weft are the narrow leaves of a sedge (?; *miskwa'*). The warps simply cross at the point of origin. The man's cap⁶⁴ is coiled, using bundles of mescal fiber, 1.5 mm. in diameter, for both warp and sewing elements. The awl ('apük) used in this work is a pointed bone from the foreleg of a deer.

A man's hair is banged across his forehead at the level of the eyebrows; at the sides and back it hangs full length, nearly to the hips. The back hair is caught together within two turns of a cord. Since this loose queue interferes when running, it is doubled up and tied. The cord is made of human hair; combings or hair cut off by mourning women, etc., are used. As hair is difficult to roll into a cord between palm and thigh, it is only started thus, then tied to a small hook-like twig, which in turn is rolled on the thigh. The finished portion of the cord is wound on the twig: the kinks are worked out to the free end. When rolling is completed, the cord is twice doubled back on itself and twisted by means of the same device into a three-strand cord.

⁶⁴ No specimen was seen.

Women's hair is banged across the forehead somewhat higher than men's. The hair at the temples hangs in three-strand braids to the breast: that in back hangs loose and is singed off at the small of the back. Such singeing, as at the forehead, is done with a hardwood coal.

Little boys⁶⁵ hair was singed short over the entire head, that of lads of fifteen or sixteen years was similarly short except for the scalp-lock, which hung to the waist. Later "when they think of women" they let their hair grow like men.

Little girls' hair is allowed to grow. When about six years old, mud (*matea'*) is put on it to destroy vermin; this is washed out immediately. Girls approaching maturity begin to cut the bang. There is nothing in dress or adornment which distinguishes married from unmarried women.

Nettle pods (*matkasi*'s *ur*, nettle ball) provided with hooked spines are used as combs by both sexes. Men obtain a whole mistletoe plant (*hīlu'c*) near Jacumba; they mash this, mix it with the disintegrated lava mud found at the hot springs, and plaster it over the head. This destroys vermin and prevents the hair falling out. When the hair is so plastered it is brought around the crown and twisted together above the forehead. Women do not use this paste, but wash their hair each morning with hot water alone. They use a brush (*hūtei*) of mescal fiber (*ēpiāl*).

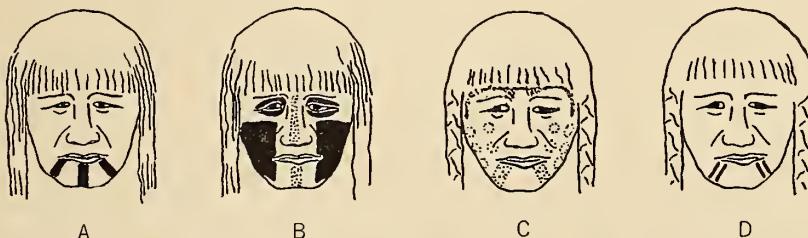


Fig. 3. Facial decorations: A, man, black paint; B, man, center stripe in red, eyes and cheeks in black; C, woman, red; D, woman, tattooed lines.

The purpose of face painting (*yiuanyu'r*, eye stripe)⁶⁶ is decorative. Men began to paint only after my informant was grown (1875?); before this only women did so. At this time several men were sent to a locality near the Colorado in Mohave territory to fetch

⁶⁵ *xinmai'*, little boy; *xomi'*, boy a little larger; *'kwoxmix*, boy of fifteen or sixteen; *siñuwau*, to have a wife for the first time; *siñhai* (young woman), girl approaching maturity.

⁶⁶ There is no word for "face."

red pigment (iron oxide?). Men paint the entire face black; women paint face and body red. Women draw a black stripe across each eyelid extending out on the temple "to protect the eyes and see better." Other styles are shown in fig. 3. A typical philanderer's invitation to a woman is: mEwUvo yi'umatanyu'rva xa'namatma'rwa ("you see my face is painted, is it good or not?"). She answers, xa, mameX'a'na ("yes, you are good"). He says, yanarX· ("let us go").

Adolescent girls alone are tattooed (*awukwi'te*, mouth tattoo), the operation being performed after a big dance by four women relatives, usually her mother, mother's sister, and two daughters of the latter. Lines are marked with charcoal only on the chin (fig. 3, d), the design is punctured with a bundle of seven or eight prickly pear spines (*ox.pa'*), the wounds are squeezed dry of blood, and ground charcoal of willow (*iyau'*), mesquite (*a'nol*), cottonwood (*axa*), or chamissa bush (*ipeč*) rubbed in once. As the operator punctures she sings:

sa nyłkaxma'
quail
sowa're sowa're wi
striped, speckled ⁶⁷
sa nyłkaxma'
puteo'le puteo'le wi
dove
nyixwa'toyowi'
blood exuding

The wounds are healed in four days' time.

MANUFACTURES

Fire drills are made of a bush (*tökma'*) bearing a white stalk, which grows in the desert.⁶⁸ A section of the stalk, 30 em. long, is rubbed to a point on a stone for the drill. The hearth is made of another section split in two and with notches cut in the edge. Dry sage bark for tinder is pounded until the fibers are loose. This is set about the point of the drill, which is rotated between the palms. The domestic fire is not permitted to go out.

Cords are made from the fibers of mescal, milkweed, and from human hair, but not from the fibers of yucca, reeds, or nettles. The common milkweed (*ahorL*) yields a brownish cord, another variety,

⁶⁷ Refers to the markings on a quail's head.

⁶⁸ Not yucca, bear grass, nor an allied plant.

white milkweed (*ahorlnyimeō'p*), a white, soft, and strong cord. A rolled cord (*ikwī'p*) contains one or two rolled strands, a braided cord (*axkwīr*; *enū'p*, to braid), three or more.

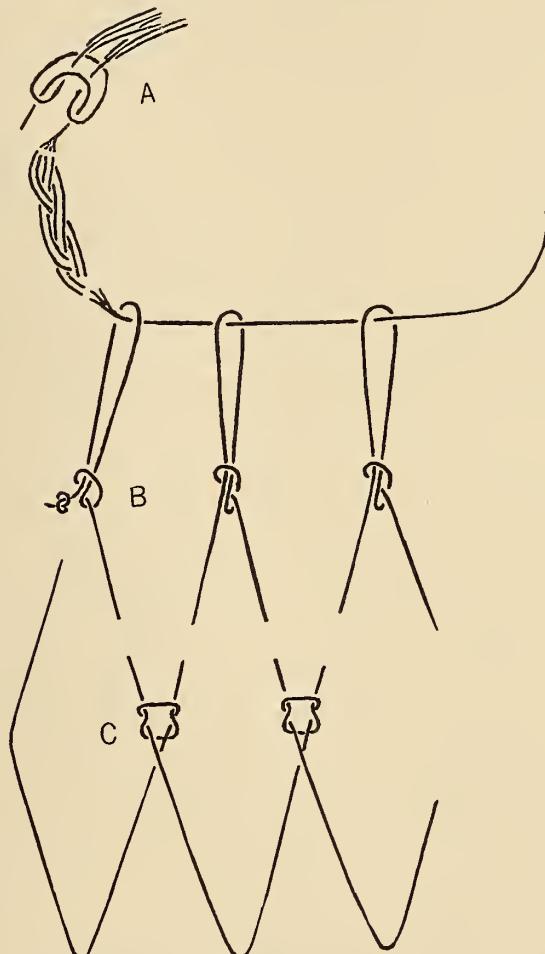


Fig. 4. Diagrammatic sketch of carrying-net knots: A, knot for six-strand loop; B, knot for first row of meshes; C, knot for second row of meshes, the net having been reversed.

The carrying net (*hatlipo'*) made by men⁶⁹ is 1.5 m. long and at least as wide when stretched out. It consists of three parts: a loop 15 cm. in diameter, a similar loop formed in the end of the tie-string, and a net of simple lozenge-shaped meshes formed between these loops by one continuous cord. Twenty-five meters of two-strand

⁶⁹ Possibly by women also.

cord are prepared from mescal fibers: this takes about a day. Long dry mescal leaves are pounded on a rock to free the fibers of connective tissue. These are soaked until soft when they are divided into bundles of the same size and rolled, two at a time, on the thigh. The sticky mescal juice is previously smeared on the thigh to bind the fibers. New bundles of fibers are added to the two strands as needed. The completed cord is pulled back and forth around a post to break off the protruding ends of the fibers.

The first loop and the tie-string are each three-ply braid, formed by doubling a cord of appropriate length back on itself six times and braiding the resulting strands in pairs. This leaves only two raw ends in each that need be tied. Next one end of the long cord is tied through the first loop with a slipknot (*t'onō'k*, any knot) and carried back to the loop to be tied again for a total of fifteen times fig. 4, b). For the next row of knots, and for each succeeding row, the net must be turned over so that the work always proceeds from left to right, fig. 3, c). Curiously enough, in the square knots by which these meshes are tied, the cord passes first to the right instead of the left, thereby twisting the whole mesh. No gauge is used for the meshes: when extended to the full they are 18 cm. long. This continuous cord ends with an ordinary square knot on the same side of the net on which it commenced, its end being knotted so as not to pull out. An end of the tie-string is passed through the last row of meshes and looped in the same manner as the first loop (see fig. 4, a). To fasten the net for carrying, the tie-string, 1.5 m. long, is passed once through the loop at the opposite end and tied to the loop just described. The tie-string may be threaded several times through both edges of the net to purse them together when a large object is to be carried. The laden net normally rests on the small of the back with the tie-string or burden-band passing over the forepart of the top of the head, which is protected by a basketry cap.

Sandals (*hamnyau'*) are of two types: woven, the most used, and rawhide. The woven sandal is made of the long dry leaves of mescal (*ema'l*), which are pounded and soaked in water to remove the connective tissue. The separated fibers are thoroughly dried on a rock. For use, they are dampened and gently pounded with the mano. For the needed foundation and tie-cords, bundles of fibers are rolled on the thigh into loose strings (*ikwi'p*) about 45 cm. long and 1 cm. in diameter. To roll into a two-ply cord, two of these are placed side by side, the butt end of one opposite the tapering end of the

other. Holding the two in the left hand, they are rolled separately on the right thigh by a single movement of the right palm; when the left hand is released, the torque in each springs to the left causing them to twine as a two-ply cord. Four loops of this cord, 40 cm. in circumference, and a fifth, 95 cm. in circumference, are tied with a square knot.⁷⁰

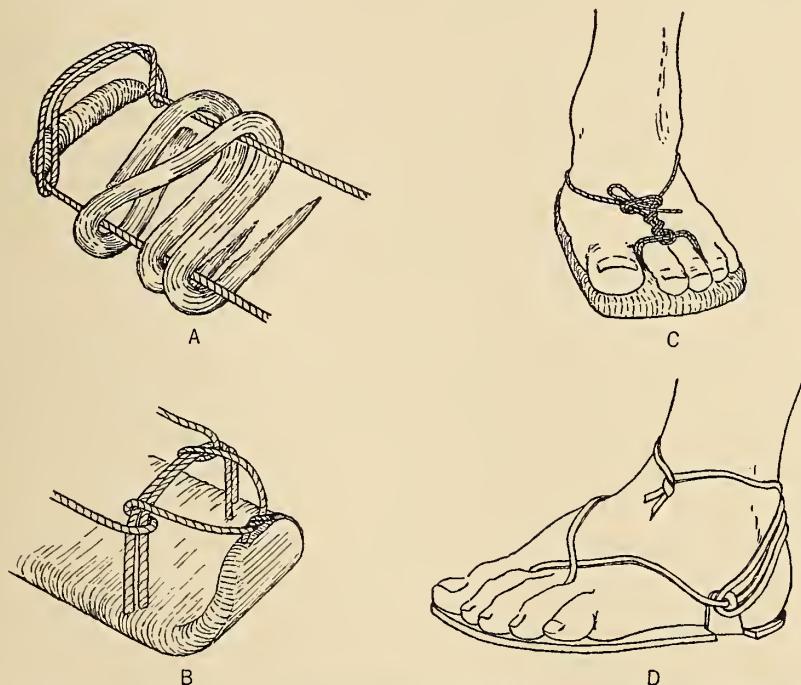


Fig. 5. Sandals: A, diagrammatic sketch of toe portion, showing wrapped foundation cord, toe loop, and woven bunches of fibers; B, diagrammatic sketch showing heel drawn up to heel loop; C, method of tying woven sandal; D, method of tying rawhide sandal.

As the weaver sits on the ground, the large loop is stretched between foot and hand. The proximal end, destined for the toe of the sandal, is wrapped over a length of 8 cm. with bundles of loose fiber until it is 2 cm. in diameter (*hutcuwa'wa*, the beginning). The loose ends are fastened by twisting together. At this stage the work may be temporarily held by slipping the loop over the knee or under the heel of the disengaged foot. One of the small loops, intended for the toes (*mixanükE*, foot loop; *mi*, foot), is passed over the foundation cord, as shown in fig. 5, A). A loose bundle of fibers is placed against this loop, a second lapping it in the opposite direction,

⁷⁰ These dimensions are for a child's sandal.

the two are woven together alternately over and under the foundation cord, and the whole pushed tightly against the toe portion. New bundles of fiber are added in pairs. The butt ends of the fibers are lapped; these ends protrude on the sole. The sandal is made the width of the palm. When the heel is neared a second small loop (*miatiksaxanüké*, heel loop) is introduced in the same way as the toe-loop. The weaving (*we'kwil*) is continued, but the sandal is made narrower, introducing but one bundle of fibers at a time. When the length is completed, these wefts are forced up on the foundation cord as tightly as possible. A sandal must not be too long, else it will slip and chafe. The ends of the foundation cord are then half-tied and carried through the heel loop, drawing the heel sharply upward (fig. 5, b). To tie on the sandal, the ends of this tie-cord (*miuso'la*) are brought forward around the ankle, through the toe loop, wrapped twice about itself, and tied (fig. 5, c).

Sandals are woven by men and women. A pair can be made in two hours. They are woven so tightly that no thorn or stick can puncture them. In use they must be turned over frequently, otherwise they will soon wear out. To reverse the sandal, the loops are pulled through on the sole, and the tie-cord retied on this side.

Rawhide sandals (*akwal hemyau'*) are cut in the shape of the sole from any part of a raw deer-hide. Cuts are made on both sides of the foot near the heel, so that there will be two short tabs to extend up the sides of the foot. Two long buckskin strings are inserted near the toe, where they are held by knotting under the sole. These strings pass between the toes, through holes in the tabs, back of the heel, and forward under the strings, back of the heel again, and are tied in front of the ankle (fig. 5, d). Fiber, rather than rawhide, sandals are worn on snow or wet ground because the latter would be slippery.

Large rabbit-skin blankets (*cíkwi'r*), such as good hunters might make, measure 1.5 by 1 m. For such blankets twenty jackrabbits or forty cottontails would be required; thirty jackrabbits would provide a somewhat wider robe. The blankets were also made of the small blue chamissa rabbits, but of these even more skins were required than if made of cottontail fur (*kwímyau' cíkwi'r*, *hótlýau' cíkwi'r*, *óphör cíkwi'r*, respectively jackrabbit, cottontail, and chamissa rabbit-skin blanket). Few if any blankets, however, were made of one species alone. The raw skin, cut in strips, is closely wrapped around a milkweed fiber cord to form a thick rope. This is wound

back and forth between two rows of stakes to form a warp through which wefts of milkweed fiber cord are tied at intervals. Save for occasional use as ponchos and robes, these blankets are bedding.

Granaries for acorns and other seeds are set up in the oak groves as well as near the houses. One type is a roughly woven basket; the other is moulded within a frame of poles. The storage basket (*cēkwi'n*) is made of any material, usually a willow (*halāsi'*), but sometimes of a tougher wood (*inkx·ai*, "coffee berry") through which the rodents cannot readily gnaw. The basket, usually made by a man, resembles a huge bird's nest, with flat bottom, fairly straight sides, but narrower at the mouth than near the base, into which the sides gradually round. Of two specimens seen, one is the largest size made, and measures 70 cm. in height, 75 cm. diameter across the rim, with a maximum diameter of 1 m. near the base; the other, 55 cm. in height, 50 cm. rim diameter, 85 cm. maximum diameter, with walls 4 cm. thick. These baskets are truncated cones: sometimes the basket is conical, and the tip must then be pried open with a sharp stick. The basket is coiled counterclockwise, working on the near side, mouth up. The green leafy twigs are cut diagonally, leaving a sharpened butt. Two are twisted together and the coil for the base started. The butt of a new twig is thrust into the mass beside one of the two elements to lengthen it. The elements are twisted once (near element moving over and away from the workman), a new twig added to the opposing element, and so on, each new twig introduced fastening the coil to the existing structure. In rough work the butt ends are permitted to project on the interior surface, but for a fine finish they should not protrude. Such granaries are set out of reach of rodents on platforms (a crib of poles, for example) near the house, never inside it.

The other type of granary (*sihūmikwi'l*) is built within a frame constructed on four posts, 1.4 m. high. These posts are set in the ground, a meter apart, at the corners of a square. A platform is built 40 cm. above the ground, consisting of two rails fastened to opposite pairs of posts, and crossed by other sticks. The upper extremities of the posts are then connected by short rails, while others are placed vertically close together between the posts, being tied to both upper and lower rails, as well as to each other. This forms a rectangular box of poles standing off the ground. All tying is done with the leaves of the Spanish bayonet. A mixture of tanglefoot grass and chamissa brush is rammed between the poles and inside the box, leaving a cylindrical hollow for storage space. Spanish dagger

leaves are then tied tightly across the top in several directions, and tanglefoot grass is rammed in from above to seal the receptacle. Such a granary also stands near the house.

Although baskets are decorated, as a rule such designs are meaningless. Some figures, however, represent the rattlesnake.

A coarse brown pottery is made in the form of ollas, bowls, and platters, as well as pipes and rattles. The product is comparatively thin-walled, hard, containing much sand for tempering, unslipped, but sometimes painted with linear devices in red. Specimens of ollas obtained are globular, but with wide mouths.⁷¹

Clay pipes have the bowl bent at a sharp angle to the stem. A nipple is formed below the bowl to facilitate holding. The stem is always of clay, pierced with a twig, never of reed. The pipe is about 12.5 cm. in length.⁷² Neither the straight tubular pipe nor one of stone is used. Sections of cane are also used for cigarettes (page 315).

Tobacco (op) is of several varieties: Coyote tobacco (*Nicotiana attenuata*),⁷³ which grows rapidly where ground has been newly burned over; īmkwoxnoi', which grows wild to a height of 30-45 cm.; and a better "tobacco" (*Salvia Clevelandi*) called by its Mexican name "salvareal." Coyote tobacco is sometimes planted near the camps, but it is given no care. Smoking was appropriate at any time of the day.

The mush paddle (xa'yal) is a flat oak stick about 50 cm. long and 2 cm. thick; half its length is blade, 6 cm. wide; the handle is 2.5 cm. wide, both portions being elliptical in cross section.

A tree is felled by means of a fire built around its foot. If somewhat rotten the tree will burn quickly. But for a hard wood, bark is piled over the fire to form a chimney-like structure in order to create a draft. The fire is constantly poked with a branch (sakaīc, poker) to keep it burning vigorously. If the flame tends to climb the tree, mud is smeared on the trunk at the danger point. Large boughs are similarly burned off after the tree is felled. Wedges were not used in timber working. The direction of cutting, as in trimming a stick, is toward the body.

⁷¹ Those figured by DuBois, Diegueño Mortuary Ollas, American Anthropologist, n.s., IX, 484-486, 1907, have much smaller mouths. These may be from Northern Diegueño territory: the exact provenience is not stated.

⁷² The pipe sketched by my informant resembles those figured by Heye, Certain Aboriginal Pottery from Southern California, Indian Notes and Monographs, VII, pls. Xb, XI, fig. 20, a, b, 1919.

⁷³ Identified by Dr. W. A. Setchell.

MUSICAL INSTRUMENTS

Rattles were originally made of clay alone, since, according to my informant, gourds are a recent acquisition. The clay rattle had a bulb as big as one's fist, drawn out into a handle. Little clay balls are placed inside at the time the rattle is modeled. They are rolled about to smooth them before the rattle is baked.

Gourds (*halma'*) are derived from the Mohave, who traded them to the Yuma. Gourd seeds were first exchanged for Diegueño acorns within the lifetime of my informant. Rows of holes, arranged longitudinally, merely increase the sound. The surface is painted in red with longitudinal bands formed of zigzags bordering on a straight line. Palm seeds (*emu'i*) are placed within. Gourd rattles do not have wooden handles. Rattles are not made of turtle shells, although such rattles are credited to the Northern Diegueño and Yuma.

Jinglers (*tasi'l*) are made of deer hoofs ('kwükmi 'kümpul, deer-foot nail). The feet are boiled until soft, when the hoofs may be removed. The tips of these are cut off while soft, leaving a hole by which they may be threaded on a cord to dry. They are then strung on short, rolled mescal fiber cords, one end of which is notted. These cords are tied together into a bunch. This rattle is sounded by a vertical jerking motion.

Drums are not made: "an olla would break if used for a drum." Baskets are not used for this purpose, but the name of a song, *xax-wa'r*, meaning a scraping drum stroke, presumably refers to rasping a basket. Notched sticks are not used.

Only one old man, Turank, who was not a shaman, used the musical bow. He held a common bow, lacking any resonator, by the grip in his mouth, tapping it with a flat stick or his finger, but not with an arrow. He also made a fiddle of a hollowed yucca stalk, fitted with a bridge and horsehair strings, and played with a bow strung with horsehair. He was the only one who had a flageolet (*wilwil*). He played day and night. No one gave him any attention: he was the only one who knew what end he had in view.

WEAPONS

The best bow (*ati'm*) is made of mountain ash (*ix-tū'p*). Screw bean mesquite (*is*) is also strong; the common mesquite (*a'na'L*) is less so, while common bows are made of a "coarse" willow ('aiyau). Oak is not used, cherry (*itn't*) is not sufficiently strong, and mulberry does not grow in this locality.

The green branch is dried, until it is to be worked, when it is softened by burying it in wet ground and then warming it at a fire. It is trimmed to size at the middle, tapering toward the ends, but the cutting is done only on the face destined to be the inside. Notches are cut in each end. While the stick is still warm, the ends are bent in, and it is lightly strung to keep this shape. It is trimmed to the final form a day later. Care is always taken that the butt of the bough is the lower end of the bow, both in manufacture and use. The length of the bow is two arm lengths (i.e., from the tip of the middle finger to the head of the humerus); the lower or butt half, measured first, is a little longer than the upper. A willow specimen is 1.2 m. long. The width of the bow at the grip is that of the stick; its thickness just half. The dimensions at the ends are not fixed, nor is the position of the nocks, which are within 2 cm. of the ends. The upper nock is shallow. The inner face of the bow is flat; the outer, rounded, is the original surface of the bough. The bowstring must be removed from a bow of screw bean mesquite, else dampness will make it set in too great an arc. The common mesquite bow is kept strung, slightly flexed; the willow bow, more flexed. Most of the curvature in the latter bow is near the ends. As a rule, the bow is strung so loosely (*mewa'L*) that a fillip of the string will cause it to slap the bow. For shooting, the string is tightened (*ewī'r*) until it rings (*ewī'r teī'lyelye*); it is then tight enough to shoot a jackrabbit.

The sinew-backed bow is known as a possession of the Chemehuevi. According to Coleman, the Northern Diegueño wrap the bow with sinew for a distance below the nocks to keep it from splitting.

The bowstring is made of the stalk of the milkweed (*aho'RL*). After the outer layers are scraped off, the stalk is mashed and the connective tissue worked out, leaving the fibers. These are rolled (*yikwī'p*) into a string on the thigh. Another milkweed (*aho'RLnyīmcōp*) provides an inferior string, which must be thicker

than the first because it wears out quickly. Sinew bowstrings (*pěcma' īmarūkă*) are also used. The method of tying both ends is shown in fig. 6, A.

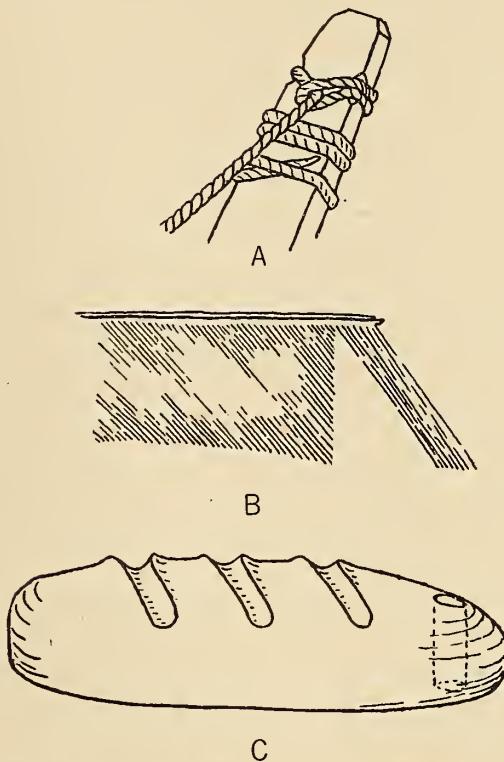


Fig. 6. Bows and arrows: A, method of tying bowstring; B, method of trimming arrow vane; C, clay arrow-shaft straightener.

Arrows ('*kopa'l*) are made of arrow reed provided with a wooden foreshaft, or entirely of wood. The latter are more effective against big game. The length of the reed shaft is from the tip of the middle finger to the head of the humerus. The length of the foreshaft is estimated: it protrudes about 15 cm. Wooden arrows are 5 cm. longer than the reed shaft. Smaller reed arrows, about 6 em. shorter than the above (measured between the same points but with the elbow bent) which are provided with longer pointed foreshafts, are used for quail, rats, squirrels, and rabbits.

The arrow shaft is straightened on a stone provided with grooves of graded size. This straightener (*xóptecütl*) should preferably be of soapstone, but one of clay (fig. 6, c) will serve. It is heated, but

not so that it will burn the shaft; then the arrow is bent where necessary in the groove, pushing it back and forth, and turning it at the same time. The shaft is more readily straightened if it is not wetted. Straightness is determined by sighting. After several are prepared, one stops to feather them.

The nock is cut in the reed shaft and the forward end is cut off squarely. Sinews are chewed and then wrapped, but neither glued nor tied, around this end, as well as at any point where the shaft shows signs of splitting. The best feathers are those of the brown chicken bawk (*sokwilnyenō'k*, or *pekwā'l*), and, to a lesser degree, those of the black hawk ('*kwi'nya*'); others are of little use. The young of these birds are raised, four or five together, in a large dome-shaped structure, so that feathers may be plucked when desired. The quill is split, but both parts of the feather cannot be used on the same arrow, for the three vanes must face the same way. If so placed, the arrow will spin, but if one faces in the opposite direction, the rear end will rotate out of the axis of flight. The upper end of the half-feather is cut off square, leaving a few barbs by which to fasten it (fig. 6, b). The down is left on the lower end. The feather is buried in damp earth, the barbs are straightened and burned off obliquely to the shaft, leaving them wider at the nock. The three vanes are wrapped on, first near the nock, then by their forward ends, the sinews being bitten off close, but not tied. The only decoration given arrows is the painting of the shaft between the vanes with piñon gum (*ahwi'yuhanyai'*) mixed with charcoal, or less frequently with red roasted iron oxide (? *ekwa'r*).

The foreshaft (*tapō'tl*) is made of the chamissa bush (*īpxī'*). The green branch is warmed until soft, straightened, and whittled to size. The pointed end is inserted in the pith channel of the reed to the first joint, being held with piñon gum. The tip is notched to receive the arrowhead which is tied in, but not glued.

Stone arrowheads (*pa'wi*) are used against big game only. These are 2.5 cm. long, or smaller, triangular, sometimes with notches in the base, but preferably notched in the sides. A mere pointed foreshaft may be used even against deer. Blunt arrows ('*kupa'l gewūnwūn*) are not made by the Southern Diegueño, but they are known as Yuma projectiles.⁷⁴

⁷⁴ The latter are said to call them '*kupa'l tasu'p*, and to use them against animals as large as jackrabbits. They are known to cause internal hemorrhages and compound fractures.

A bowguard (*sély'a'p*, band on hand) has been used only since the advent of the whites. This extends the length of the forearm and is provided with buttons and fringes.

The quiver (*mishwip*) is made of buckskin, and possibly of coyote and fox hides. Mountain lion hide is used, but such quivers are too short. A rectangular piece, in which the tail is included, is cut from the tanned⁷⁵ buckskin. This is folded lengthwise, another strip (*kūtsa'L*, fringe) is similarly folded and inserted in the open edge of the first piece, where the four layers are sewed with a running stitch. The second piece is then cut straight across into fringes. A stick is fastened in the fold of the first piece, and the lower end of this sewed up to form a bag. Loose arrowheads are carried in the bottom. A mescal fiber string is threaded around the mouth, so that the quiver can be tied around the waist, where it hangs obliquely at the back with the opening to the right. It may also be hung at the right hip.

The Northern Diegueño alone tan a whole coyote skin and sew up the belly from the nose nearly to the tail. This hangs on the back head down; the hind legs are looped to go about the neck and the forelegs may be tied around the waist, so that is it worn like a knapsack. The tail hangs down the back. Arrows put in this sack stand vertically back of one's neck. A conical pottery cup, in which the arrows may rest, is placed in the bottom. In war, venom of the rattlesnake or the gila monster is put into this cup. The flesh of horses killed with these poisoned arrows is eaten.

The bow is grasped just below the middle, and held vertically nearly at arm's length, with the arrow to the left of the bow where it is guided by the left forefinger. A modified tertiary release is used, grasping the arrow at the vanes between the thumb and second joint of the forefinger, with the tips of the index and third fingers bearing on the string. The arrow is pulled well back to the right shoulder. The bow is not thrown forward with the release.

Jackrabbits could easily be killed at fifty-five to ninety meters distance. Jim McCarty has seen mountain sheep killed with a single shot: thirty-five meters is the usual distance. In shooting at a distance, the archer sits down with the bow extending horizontally across the soles of his feet, using a wooden arrow for the missile.

⁷⁵ In tanning, the skin is dehaired while resting on a log; brains are mixed with mescal fiber and dried until needed; this mixture is rubbed on the inside of the hide, which is allowed to stand; it is then soaked and rubbed over a pointed post.

Paiyo'n, who puts his foreshaft in the fire to make it glossy, on ^{the} occasion shot entirely through the body of a deer in this manner at a distance of one hundred paces. No allowance is made for windage or the effects of rain: one aims directly at the mark.

Arrows, bows, and guns must be removed from houses in which there are menstruating women. Nor can such a woman eat any game, else the bow, etc., will lose its efficacy (*noxwi'*, also "poisoned by a rattlesnake"). Men who have had connection, or others who have slept with women in this condition, are warned away by the hunters, else game will not be sighted.⁷⁶

Clubs are also used as weapons. A heavy club (*alaplap*, flat) is made of mesquite (*axpa'L*) or lilac (*mekwīl*). This club is half a meter long, curved, thick, and flat, with notches cut into the convex edge. A loop is passed through a hole in the handle so that it may be hung from the wrist or the back of the belt. This club is used with a slashing stroke in striking at the foe's head. A spiked club (*mīltcēis*), of about the same length, resembles an angular hook. It consists of the fork of a sapling with the shorter branch sharpened. The cylindrical and ball-headed clubs (*mīltchahwai'*, or *hwa'Lmatu'te*, head hitter) are not used, though they are known as weapons of the Yuma and Cocopa.

The Northern Diegueño are said to use a wooden poniard (*apa'knīmu'yī*) resembling an awl, 15 to 20 cm. long, but with a knob for a butt. This is carried concealed under the armpit; men even slept thus with it.

GAMES

Arrow games are few. A bundle of grass (*sūkulyīp*) is thrown into the air with the hand that holds the bow and an attempt is made to hit it before it touches the ground. A hit wins an arrow from the opponent; his turn begins when one misses. The opponent does not tap his own bow to make the archer miss.

In another game two parties would shoot at each other with arrows lacking foreshafts. My informant was told by his uncles on one occasion that they intended to play all morning until they were tired.⁷⁷

⁷⁶ One man burns the gun sights with a match to destroy this contamination. This is said not to be a Mexican custom.

⁷⁷ Shooting at an opuntia cactus mark, or at a rolling barrel cactus, is unknown.

The Northern Diegueño are said to have a game called ana'n, with rats for stakes. An unfeathered arrow (*sékemü'm*) is released to stick into the ground 90 to 150 meters distant. Each man in turn shoots an arrow at this mark. The closest shot wins one rat, until a fixed number of points are made, when the remainder of the stakes are won. Should an arrow strike the nock of the goal arrow, or pierce its shaft, the archer wins all the stakes. This game is played either before or after rat-hunting. Arrows are also wagered.

The same people are said also to play a game (*iteix anane*, disk game) with stone disks, 7.5–10 cm. in diameter, fashioned from slabs of sandstone. As in the arrow game just described, one disk is thrown off some distance, and the others thrown at this mark. The nearest cast counts one: if the cast stone rests on the object-disk, this competitor wins the stakes.

The hoop and pole game (*atü'rp*, live?) is played by men alone. The poles (*atü'rp*) are 3 meters long, and from 3 to 4 cm. in diameter at the butt. Poles are styled "man's" or "woman's"; the former has a single ring cut near the butt, the latter, two rings. My informant usually used a "man's" pole. The hoop (*képateu'lya*), 15 cm. in diameter, is made of a bundle of mescal fibers arranged in a circle, bound with a cord of the same fiber to a thickness of 2 cm. The game is not played on a made course, but to a distant point, perhaps a mile or more away. The hoop is held vertically, palm up, against the wrist, and thrown forward and down to roll. The poles are thrown by the two players, after a brief run, so that the hoop will fall on a pole. The hoop must rest in such a manner that its upper segment extends beyond the edge of the pole. This counts one. If the hoop simply rests on the pole, but does not clear, it is a miss (*minna'tlya*, fell over by itself). A stream of sand dropped from the hand is used to determine doubtful cases. If the hoop rests in the notch (either notch of the "woman's" stick), or on the end of the pole above the notch, it counts three. Piercing the hoop is a mis-shot (*sa'kō'p'a*). The one winning the point throws the hoop. Six points win the stakes.

The hoop is a woman of whom one dreams. If she likes the player he will win no matter how the pole may be thrown. But if she is jealous, because the man sleeps with another, she will give the game to his opponent. A loser might ejaculate, *si'ñkowa'tepítc nyinohwim teawo'mdjis* (That woman yonder caused me to lose).

In general, luck comes from dreams: the night gives the dream (ísemǖp ha'napsi'wīdjīs. my luck is very good).

My uncle, Kumpi'r, who was a shaman, was a champion player of this game. He played it day after day, everywhere. This is the only game for which there was a leader (*hotu'rpem kwaipai'*, hoop and pole chief). When I last saw him he was so old that he did nothing but lead the game. He was given many things for being leader. They bet rabbit skin blankets. If several men went to the Yuma to play, he went as their leader because he invariably won. After he became blind, they also took him along. He told them how he had always won; that the night had given him luck. Whenever they won they wanted to divide with him but he refused, saying that he was sufficiently provided for. They took him along because he had luck and also because he knew the game and could settle disputes. He would let them play with his own lucky poles.

Girls and young women juggle (*mai'mawo'tx*) as they stand quiet.⁷⁸ Only two objects are tossed, piñon nuts, small pumpkins or watermelons, or stones. One hand is used until a missile is dropped, then the other. Northern Diegueño girls begin with two or three, increasing the number to seven.

Poles are balanced (*i'epeakwi'ya' sē'lpi*, to stand a stick on the finger) by young men as they walk about. They are held on the middle finger. Occasionally when slipping the man tosses the pole to catch it again on the palm, where it is slid back onto the finger. This is not considered a definite game.

String figures (for which there is no generic name) are played with by girls and women only. Names of some of the figures are Wild Cat's head, Fox's nose, Coyote's nose, the Milky Way, and the carrying net. But anyone might make a certain figure to see if it resembles a boy or girl, thus forecasting an expected birth. Another figure may be made to show whether or not one will be bitten by a rat when hunting.

⁷⁸ My informant observed, when the Havasupai custom was described, that "girls who walk about while juggling are not good, because they do that to attract attention."

CALENDAR AND STAR LORE

The Southern Diegueño year is divided into two identical periods of six named "months" each corresponding roughly to a lunar month.

<i>Month</i>	<i>Corresponding</i>	<i>to</i>	<i>Characteristics</i>	<i>Gifford</i> ⁷⁹	<i>DuBois</i> ⁸⁰
xaLakwō'L		September		ilyakwel (cold)	hutlkwurx
xaLanyimce'p		October	acorns drop; snow	hexanimsup (snow)	hutlnama- shap
xaLatai'		November	greatest cold; rain; snow	xatai (cold) (January)	hutltai
xaLapisu'		December		hexapsu (rain)	hutlpsti
xaLa'mrtinya'	{ January July		slightly warm	hatyamatinya (rain)	hutlmata- nai
xaLanitca'		{ February August	warmer; yucca grows	ixyanidja (growing)	hutlanaxa

The year ⁸¹ (mata'mp) begins when the weather turns sharp and a constellation of five stars, the Hand, rises in the morning. At the end of the half-year (mata'mpxaxkai, hǐlya'homxo'x· haiya') the series of six names is repeated without change.⁸² In the second half, for instance, the moon waning August 8, 1920, marked the month xala'metinya', which preceded the last month, xaiānītca', the close of which would mark the end of the hot weather. The descriptive phrases given for the winter series are intended as characterizations of the months, not as translations. The month is called hǐlya, moon, but it cannot be a true lunar month, both because there are only twelve months recognized, and because certain months are indicated by the appearance of particular constellations. The first month, xalokwō'L, begins when the Hand rises in the morning; in the third month, xalatai', the constellation Buzzard rises in the morning during the moon's last quarter (then the buzzards flock from the east); and in the fourth month the constellation Cilu'k rises in the morning while the moon is new.

Such a system of twelve named periods would present difficulties if an attempt were made to harmonize them with the months of the lunar year. It would necessitate accounting for the omission

⁷⁹ Present series, xiv, 169; obtained from the same informant, whose coupling of xatai with January contradicts the data he gave me.

⁸⁰ Present series, viii, 165, footnote 304; Miss DuBois' series begins with hutlnamashap and has hutlkwurx in fourth place.

⁸¹ Spans of years are definitely indicated, as mata'mptcipho'k', eight years.

⁸² Leona Cope, Calendars of the Indians North of Mexico, present series, xvi, 141, 1919, implies that the Diegueño periods begin at the solstices, but there is nothing in the authority cited to confirm it.

of about a month, or an intercalation in some as yet unexplained manner. It is far more reasonable to suppose that the named "months" represent only seasons corresponding more or less inexactly to the actual lunations. It is gratuitous to suppose that these Indians feel the need of or have an interest in proportioning the year into a number of exactly equivalent periods. Rather they find it convenient to designate spans of days which for the most part will correspond roughly to the lunations, without precisely fixing their limits. There is therefore no question of an intercalation necessary to make the procession of names fit the procession of the lunar months. The discrepancy, though it may be noted, is not a matter to be reckoned with, since the names are sufficiently fixed within the year by the appearance of the constellations, and can be made to designate the nearest lunar month without a violent wrench of the system. That this is not simply speculation as to the manner in which the Diegueño operates was evidenced at every point by my informant. He had no difficulty in giving the sequence of the months and their approximate Spanish equivalents, nor in describing the correspondence of the constellations with the months. But he could neither define the beginning nor the duration of a month according to our calendar or according to the lunations. It was evident throughout that he was interested only in designating a series of short periods, more or less fixed, which occurred without much reference to the lunations.

The Southern Diegueño have considerable star lore. In addition to the constellations mentioned above, viz., the Hand, the Buzzard (*ci'i*), and the constellation *Cilu'k*, which consists of an arc of stars with a secant of three larger ones, they recognize the Jealous Star (*koxo'a'p*), the Mountain Sheep (*amu'*), consisting of three stars,⁸³ the Pleiades (*xitca'*), of which there are seven, the Milky Way (*hatotkeu'r*), and others. Near Vallecito is a deep canyon ('kwilüpawu; 'kwitüp, look at stars canyon), from the bottom of which one can see the stars in the daytime.

The solstices (*hilyatai*) are observed. My informant knows at which points on the mesa east of his house the sun will appear to rise at the solstices. The winter solstice occurs during the month *xałapisu'*, when the moon is at the end of its last quarter, but it is said that the summer solstice is during *xałatai'*, which would be May, according to the calendar above.

⁸³ DuBois identifies this name with Orion (present series, VIII, 165, footnote 304, 1908); cf. Waterman, *loc. cit.*, footnote 66.

NOTES ON EIGHT PAPAGO SONGS

BY

E. G. STRICKLEN



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These melodies were transcribed from talking-machine records of their performance as unaccompanied solos by an Indian singer. Due to various difficulties connected with the transcription, it was thought best to use the simple key-signature of A minor for the first song, and to note down the others according to their pitch-relations to the notes of the first.

With the possible exception of nos. 2196 and 2197, however, none of these songs can be said to be in A minor, or indeed in any of the keys or modes of Caucasian music. If we assume the existence of a feeling for scales on the part of the Indian singer, we may determine the scales upon which these songs are based according to the following observations:

1. The series of notes included between the highest and lowest notes in the song.
2. The note in each song upon which the most important phrases end as a resting point.

This resting point is always on the last note in each of these songs, so that we can feel justified in calling it the "final," as in the study of the medieval modes.

According to such observations we may find three different scales employed here. No. 2193 makes use of the complete scale E F♯ G A B C D♯ E, with the lower E as the final. Some of the B's were sung slightly flat and one of the G's slightly sharp as indicated, but the writer is inclined to regard these apparent exceptions from the scale as being due more to the curious intonation of the singer than to the presence of genuine chromatic alterations. No. 2199 also seems to be built on this scale, although the last two notes of the series are not used. Both songs have a curious secondary resting point on the F♯.

Nos. 2194 and 2198 seem to be built upon a fragmentary scale whose extreme notes are only a diminished fifth apart. Half-steps are found between the first and second, and the fourth and fifth, degrees of this scale. The first degree is the final. The second degree is missing in no. 2194.

No. 2200 seems to belong to this group also, as it has the same final, and makes use of the same characteristic intervals. The E may be regarded as an extension of the scale below the final.

Nos. 2195, 2196, and 2197 make use of the first six notes of the scale given for no. 2193, only now A is the final, so that we have here another scale. But for this use of the A, we might also regard no. 2195 as belonging to the same group as nos. 2194, 2198, and 2200.

Nos. 2196 and 2197 in their avoidance of the F \sharp and G give a strong impression of A minor.

n. 2193

While this entire set of songs can be referred to the scale given for no. 2193, the strong influences exerted by the relations of the notes to the different finals seem to justify the classification offered above.

The general rate of speed in delivery is marked by the customary Italian words. The slower songs were sung with considerable freedom of meter; the more rapid ones kept to the measure very evenly. While a majority of the songs kept to the same meter in which they started, some, like no. 2194, present an astonishing variety of metrical changes executed with an entire freedom from abruptness. The same smooth delivery characterizes the rhythms of three, five, and seven, found in nos. 2193 and 2195, where they are given against the prevailing two-four or four-four meter with a skill that conceals their difficulty. The other rhythmical figures are of the types generally familiar.

Each song is made of two strains, each strain being repeated. The ends of the two strains of each song are alike: a fact indicated by the lines drawn above the ends of each strain. These similarities are generally exact, but no. 2195 shows an interesting variation in this regard, as may be seen by comparing the corresponding measures.

No. 2194

(Allegretto)

Most of the songs are very simply organized. The material of each second strain, before the entrance of repeated material, is easily derivable from the opening of the first strain when it is any more than a connecting link. Repetition within the strain gives more organization to nos. 2196 and 2197, as is partially indicated by the extra double bars. The same end is attained by the sequences in nos. 2195 and 2199 between the first two and second two measures, and between the first four and second four measures in no. 2200.

As a rule the melodic ideas occur in the usual two-measure or four-measure groups, although a six-measure group ends each strain of no. 2193, a seven-measure group does the same thing for no. 2194, a three-measure group for no. 2196, while no. 2197 begins with a repeated seven-measure group and has a five-measure group for the beginning of the second strain, and no. 2199 ends its strains with a five-measure group.

But just as the unusual metric and rhythmic combinations do not destroy the flow of melody, giving it an added charm, so these unusual measure-groups produce designs in musical form which are new to us and yet give a sense of symmetry.

no 2195
Moderato

no 2196
(tempo marcato) (The B's rather flat)

No. 2197

Quasi marcia. A seven-measure phrase¹

a seven-measure phrase¹

rests are shorter than written value

very light I
These II

a five-measure phrase

No. 2198

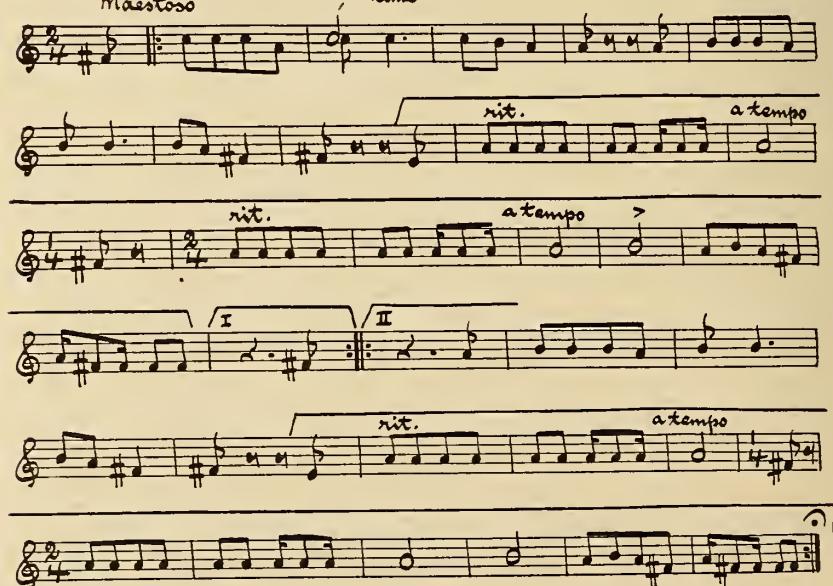
Sostenuto molto = glissando Very free in time, bars

approximate except at x where they are even.

no. 2199

allegretto

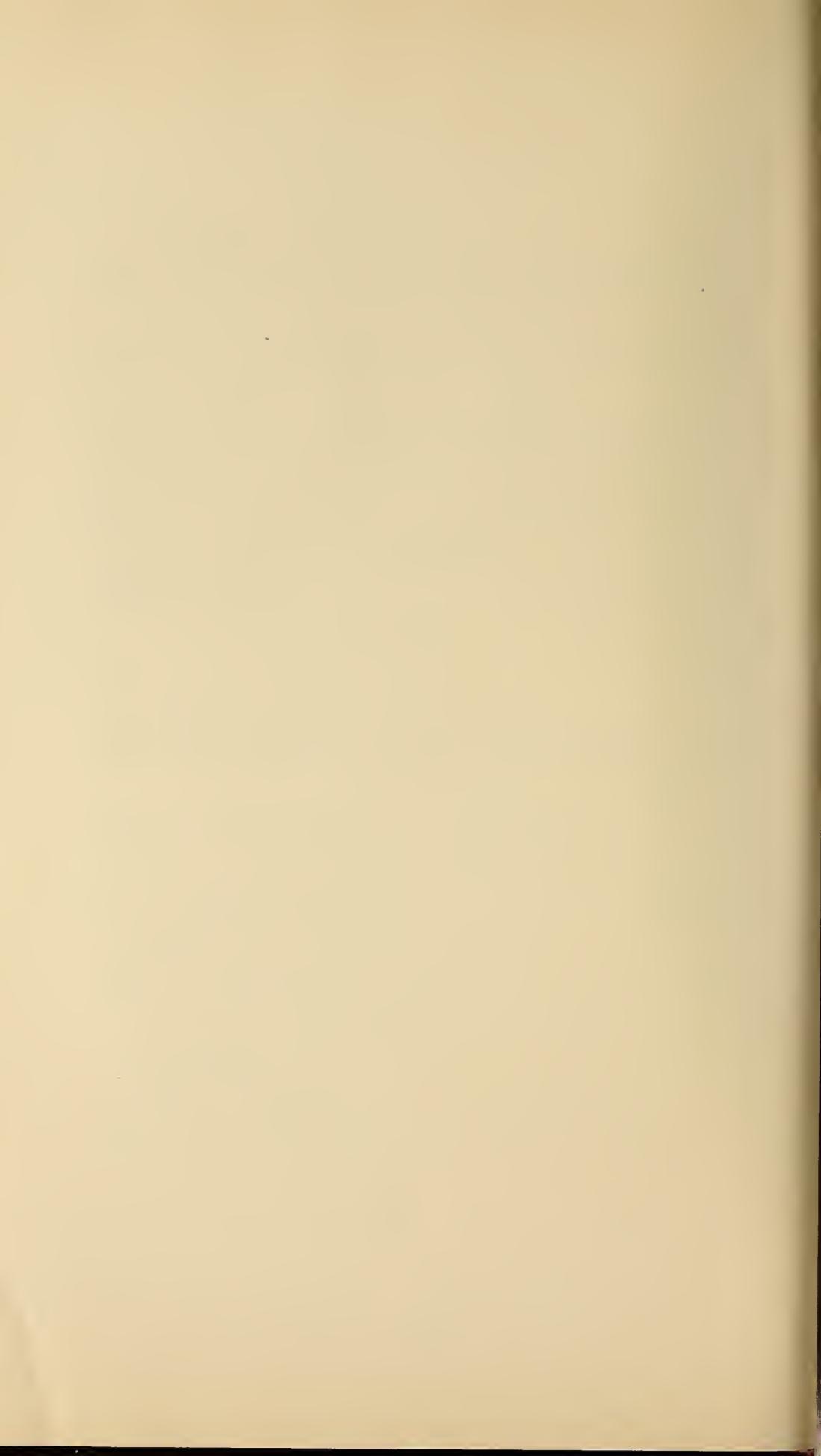
no. 2200

*Maestoso*2nd time

YUROK AFFIXES

BY

T. T. WATERMAN



YUROK AFFIXES

T. T. WATERMAN

INTRODUCTION

A brief notice of Yurok affixes appeared in 1911 in a paper by A. L. Kroeber on *The Languages of the Coast of California North of San Francisco Bay*.¹ The present account is an amplification of the remarks there published. It is based on text material supplied by Kroeber, together with additional notes made by myself in the field. The symbols used in writing Indian words are those employed in my *Yurok Geography*.² The alphabetic order is as follows: i, e, ä a, r (r), o, u, w, y, h, x, p, m (m), t, s, ts, n (n), l (l), k (q), g. The language does not seem to be at all simple, and, moreover, I have never made any very lengthy investigation of it. A final study of the morphology will come from other hands than mine. In the meantime certain facts concerning the structure of the language are fairly obvious, and it may be of interest to list them here, very briefly. The material may be useful in comparing Yurok with other Algonkian forms of speech.

PERSONAL PRONOUNS

INDEPENDENT FORMS

In these forms there is no distinction for number.

First person	neq, neqa'	I, we
Second person	kel, kelä'w	thou, you
Third person	kelä'	he, they

Intensive usages.—These “independent” pronouns are frequently combined with modification into the long verb complexes in which Yurok abounds. It is usually the shorter of the forms listed that are merged in the complexes. The longer of the alternative forms seem to be used for special emphasis. Within such a complex, the independent pronoun may place itself wherever the emphasis requires;

¹ Present series, IX, 414–426, 1911.

² *Ibid.*, XVI, 1920.

and may even be repeated. In these complexes intensifying expressions also are tacked on to the pronouns.

pic-neq-kwel-eq"-kiti'-ye'go-k, now I indeed certainly about-to go I (as one would say in English: *one moment, please, and I will join you*).

neq-ni-mots-ho'go, we verily ourselves did (*it*).

Reflexive usages.—The word we'skwel, body, is used in forming expressions which correspond logically to the reflexives of English.

o-ni'na-u-we'skwel, indefinite-time observed-he his body, (*he looked at himself*).

Similarly ne'-wes is used for *myself* (literally: *my body*) and ke'-wes for *yourself* (*your body*).

AFFIXED FORMS

Possessive forms.—These elements have no meaning if detached from the stem.

my	n-
your	k-
his, her	w- (before vowels), u- (before consonants)
indefinite	m-

Subjective forms.—The subjective concept is expressed by either prefixes or suffixes, according to some complicated rule which I do not understand, but which apparently has to do with the nature of the stem. Certain intransitive verbs, especially, take the prefixed forms.

The prefixed elements, where they occur, correspond exactly with the possessive forms just listed. Thus he'cek, *think*, takes the forms n-e'cek, *I think*, and w-e'cek, *he thinks*. The verb *to roll over* becomes no'lkepekk, *I roll myself over*, w'olkepekk, *he rolls himself over*.

Subjective meanings are, in many verbs, carried by the following endings:

First person	-k
Second person	-m
Third person	-l

Thus, ske'wo-k, *like I*; ske'wol, *likes he*; ni'mi ske'wo-m hes, *not like-you, no?*

Transitive forms.—The most conspicuous feature of the Yurok pronouns, to my mind, is the occurrence of forms which express both subject and object. The schedule of these forms which I have worked out is not complete. Certain forms, which logically should exist, are not represented in my notes. The forms which have been encountered are shown in the following tabulation.

COMBINATION SUBJECTIVE-OBJECTIVE PRONOMINAL FORMS

		<u>Subject</u>			
		I	thou	he, she, it	they
Object O	me	-pa -sipä' -sipä'L -sipän		-pitc -sipä' -sipe'N	-päl -sipe'L -seik
	thee	-tsik -sitsek		-ye'M -seyi'M	
	him her it	-sicek -simek	-M -se'M -seme'M -sisek -sitsem	-si'M	-seik -simel
	us		-seyogo	-sipä'L -saiyogo	
	you	-tsö -sitso'			
	them	-M -so -sico'			-simel

In addition to these there is a reciprocal form, -peyl, meaning *they . . . each other.*

DEMONSTRATIVE PRONOUNS

The most frequently used demonstrative in the language takes the form *wa'* or *wi'*, *this*. It refers to something definite, or visible. A weaker demonstrative is *ki*, *that*, which is used almost as is the English definite article. Before vowels it takes the form *ku*.

The first of these demonstratives is often followed by the element *-tu-*, when it may take on two forms: *wii'tu* or *wi'stu*. Although I have the feeling that *wii'tu* is the more emphatic of the two, both are constantly used, and seem to be interchangeable. The form *woi'tu* is said to refer to persons.

We' and *ki* often appear together, attached to the same noun. The form *yo* means *that one yonder*.

neqa'-wa'i, *I that* (our colloquial English *that's me!*)

ki-ye'gok-meL-wi', *incomplete-action go-I for that* (i.e., *I am going for that purpose.*)
Question: *Which of these is yours?* Answer: *wii't* (touching it with the finger).

neq-qwel-eq"-wii't-meL-ho'xkumek-tsik, *I indeed verily that for receive money* (i.e., *that is what I am paid for*).

wii't-kits-meL-nes, *that completed-action for come* (i.e., *that is what I came for*).
tu-nol-wi'stu-meL-ru'rawo', *so then that for he-sang*.

wis-tu-ki-yego'xku, *that-person indeed incomplete-action make-it* (i.e., *he is the one who will make it*).

tu-wo'tis-tspin-la'temel, *indeed those only travel (there)*, (speaking of a trail, traversed by dead souls).

Relative pronouns as such do not seem to exist. Relative expressions are elliptical (such as *the man he makes* instead of *one who makes*) or are introduced by an element *kus* which is also used for the interrogative. (see under Adverbs, below).

qwela's-ki-Tr'wr-kus-ol, *that man at-Trwr who lives*.

The phrase *which I give* is, in Yurok, *the given-thing*.

ELEMENTS PREFIXED TO THE VERB

The most nearly characteristic thing about Yurok is the formation of somewhat long and rather loose verbal complexes, consisting of a verb stem with modifying particles added. These particles or elements are placed for the most part before the verb. Those which appear thus before the verb are also the most easily analyzed. In fact, the suffixed elements have largely baffled me so far. In some cases such affixes modify the meaning of the stem in very slight degree. Certain of them are therefore translated into English only

with extraordinary difficulty. As luck would have it, these expressions with vague or generalized meaning are precisely the ones most frequently employed. It seems well therefore to give, first, a list of these "generalized" particles or affixes, with whatever explanation I am able to supply concerning their meaning.

ELEMENTS WITH GENERALIZED MEANINGS

-mi-. This element occurs apparently as part of such affixes as olku'mi, ni'mi, nu'mi. It also occurs by itself in some expressions. I do not know what it means.

mi-ki-kitsyu'-skewo'kseik, . . . *will all like-him.*

mo-mi-nitsyu-mel-qege'samui, *because . . . all therefore will-one-by-one-die.*

-tu-. This element occurs at or near the beginning of fifty per cent of the verbal complexes one encounters in a Yurok text. What it means I cannot say, but a great majority of definite assertions begin with it.

kus-tu-ki-me'gwa, *where, now, [is] that boy?*

tu-wii't-weⁱ-kits-mel-ne'skwetsok, *now that matter hither completed-action for come-I (that is what I came here for!).*

wii't-qwel-tu-kits-ko'm, *that indeed already completed-action know (I knew that already).*

kits-he'gok, *completed-action go-I (I went).*

tu-kits-he'gok, *already completed action go-I (I had gone).*

A person suggests to another, "Let's go to Weitchpec tomorrow." The reply is, we'ko-tu-ki-li"mo, *right-now indeed incomplete-action go (lets go now, instead).*

tu-kiti'-ye'gok, *well, impending-action go-I (well, I think I will start).*

-pis-. This element is often used as a resumptive, like our English *so* in narration. The Yurok story-teller says pis while he is awaiting the inspiration of the muses or resting between long verb complexes. Also, a man who wishes confirmation of his statement might turn to a witness and say pis? (*isn't that so?*). A very large number of the verb complexes in a text which do not begin with tu, begin with this pis.

-so-. This often has much the sense of our *accordingly*. It serves to connect an idea in a definite way with what has gone before. In many cases it has been translated *because*. It is sometimes equivalent to *seeing that*.

so-kits-nimo'oq"-we-te'gwono, *because completed-action no-longer to-him flesh (i.e., because his flesh was all gone).*

-kwe'si-, so; as a matter of fact.

If someone showed a stranger into a sweat-house, an appropriate remark would be kwe'si-rgr'ik-wi, *so, sweat-house that (so that's what a sweat-house is like!)*

When inquiry was once made about a certain person's grandmother, the reply was *kwe'si-kits-qoL-son*, *to-tell-the-truth, completed-action something she-did* (i.e., *as a matter of fact, the old lady died*).

-kwel-, indeed. The expression serves to mildly intensify an idea.

neqa'-kwel-pas, *we indeed not* (i.e., *not us!*).

tu-nol-wii'tu-qem-menets'lek-kwel-neq, *indeed at-that-time thither also go-I yea, I myself.*

-eq^w-, verily. This particle adds somewhat greater force to an assertion.

pis-wis-eq^w-son, *now that verily [he]-did (that's exactly what he did)*.

If a person uttered a sudden startled exclamation, a companion would say *kus-son-eq^w*, *what is-it, verily?* (i.e., *what's the matter with you?*).

kolو-eq^w-skuwe'tik, *it-appears indeed that-you-find-it-good* (in the vernacular, *seems like you like it!*).

neqa'-eq^w-hogo'xkumoxki'n, *I myself make-it-from-time-to-time.*

-ni-. This particle carries the significance of *very, very much, completely, exactly*, thus emphasizing the elements with which it is associated. Thus *mo'oq^w* means *gone* or *used up*, while *ni-mo'oq^w* means *all gone* or *completely used up*. In some cases the particle is best translated by an inflection of the voice rather than by words.

qwel-eq^w-ni-two'ri-son, *verily indeed very often [thus] it-is (that's the way things go)*.

A person said to another, *where is your hat?* The reply was *ole'q^w-ni-oq^w*, *at-home indeed have-it-I.*

The elements just mentioned readily fuse or unite themselves into set combinations, each of them with very indefinite connotation. These are comparable with our compounds like *nevertheless, all-in-all*. They are very liberally used in Yurok. Some of these frequent combinations are *pi'etu*, *qwe'leq^w*, *ni'ni*, *so'nini*. These, with the exception of *ni'ni*, are even less readily translatable than are the simple elements given above. *Ni'ni* is seemingly a duplication of the *ni* already described, with a shift in meaning. Thus, someone would say of a baby, *wi'-ni'ni-he'gok*, *thus just he-walks (he is only just beginning to walk)*; or, if asked "*where is the baby?*" would respond, *wi'-ni'ni-o-rur*, *he just indefinite-time runs (he is just running around)*."

The phrase *we'ki-teo-no're"* means *this object is pretty*; while *we'ki-teo-ni'ni-no're"* means *this is prettier*.

It seems unnecessary to give examples of the other combinations I have mentioned. They occur in great profusion, but are colorless.

ELEMENTS WITH SPECIFIC MEANINGS

The implication of the following elements is fairly well established. For the alphabetic order, the reader is referred to the statement at the beginning of the paper.

-em-, by going, by coming. This element also occurs in the texts in the forms äm, häm, me, and e'me.

pis-tu-em-ki-Sa''a-heno'gwane'qu, so then by-going to-Sa''a he-brought-it (he carried it farther, to Sa''a).

heL-tso-wii'tu-em-ki-meL-mego'xpi'n, come, better, that-man by-traveling incomplete-action with converse (come, you had better go talk to that man).

A person giving directions for finding a certain house said, *wa'i-tso-em-ki-lä'yí'm, this-way imperative by-going incomplete-action walk-thou.*

wistu-qem-em-lo-ni'nawo'm, that-person also by-moving saw [it], (the next also came and looked at it).

kits-mä-sloitso-k, completed-action by-moving descend I (I went down).

pic-kits-me-qo'moigo, indeed completed-action by-going heard-we (we went and heard him).

neq-qwel-eq-won-kits-me-co'tok, I indeed verily above completed-action by-moving went-I (I went up above).

e'le-, at a distance.

kyekʷ-e'le-ne'sqwetso'l, kyeL-petskuk, yonder at-a-distance he-arrived, yonder up-river.

pictu-Segwe'ʷ-e'le-no'woni, then to-Segweʷ distant they-brought-it [the Deerskin Dance].

nol-pe'tsku-e'le-ni'nawom, at-that-time up-river at-a-distance he-looked.

krl-e'le-negwo'rkes, visible from a long distance [name of a rock].

wi'ctu-qem-e'le-nino, that-one also at-various-places looked.

pistu-rekwai-e'le-nawani'-ki-upiugwe'ganil, then to-Requa distant took that Deerskin-Dance.

pis-wi'stu-wo'noiyek-e'le-ne'skwetsoL, now that-one overhead at-a-distance arrived (i.e., in the Sky-country).

pi'stu-nol-olege'�-e'le-na'wonikyu, so at-that-time at-Olegel at-a-distance he-arrived.

-ap-, next in order; next after that.

kwe'si-wi'stu-äp-cr'Le'M, indeed that-man next buried-himself.

heL, kuc-o-cots äp sruynoya'so, ha! when indefinite-time he-comes-out then he-looks-around.

äp-ni'no-umego'kʷ, then he-looked-at his-dogs.

-olku'mi-, because, of course.

olku'mi nu'mi wa'asoik, because very poor-I. An informant was asked, can you employ that word in another sentence? The answer was olku'mi, of course.

-o-, indefinite time.

piskä'l-o-re'qen, *in-the-ocean they-were-sitting*.

ki-o-lewo'lotsem, *incomplete-action indefinite-time you-will-get-well*.

kyekʷ-o-nrgr'i-neq, *yonder indefinite time helping-out I (I am working as a hired man over there)*.

pis-wi'stu-o-nrmr'i, *then he indefinite time began-to-sing*.

kits-qol-o-nepim, *completed-action something indefinite-time eat-they (they have eaten something already)*.

niqo'L-o-nekrgrkr'k, *always-I-used-to-fish*.

-mo-. This element is a conditional, adding the idea that what is stated is uncertain, vague, or indefinite.

mo-ni'mi-hes-une's? *Indefinite not interrogation arrives-he?* (hasn't he come yet?).

mo-ni'mi-uqrgr'xtspr', *yet not adolescent (before [the girl] becomes adolescent)*.

mo-wis-o-lego'xk, *conditional it indefinite-time make-I (I was going to make it)*.

mo-wii't-kits-weno'omoksi, *indefinite it completed-action began-to-be-summer (just when summer began)*.

hel-tso-wii't-mo-ki-ne'sqwetsol, *come! imperative there conditional incomplete-action arrive (you had better go thither!)*.

A story refers in the following terms to a certain mythical spot: ki-kits-mä-qwe'toyo-mo-wii't-laye'm, . . . *completed-action by-going encountered-danger indefinite that-place [which]-traveled-they (that was a dangerous place, that place, wherever it was, which they went through)*.

. . . mo-wii't-si-olego'xku, *would [have been] there for their-use*.

. . . mo-ki-ye'gok, *if incomplete action go-I (i.e., . . . if I go)*.

tso-nu-weno'm-mo-ki-tämöil, *better please come-over if future bright (come over if the weather is bright)*.

. . . mo-not-pu'luk-kits-ro, *when at-the-time down-stream completed-action [the sun] passes (when the sun has gone down)*. As explained by Kroeber, for the Yurok downstream means west.

-mo'tse-, if, when (indefinite time). This seems to be a combination of the *mo*, just given, with a new element.

. . . mo'tse-ki-nimi-uqrgr'xtspr [I will be offended] if incomplete-action not observe-adolescence-rites (. . . if people do not observe the taboos).

ki-nu'mi-pyuts-son-mo'tse-ki-hime'n-ho'o'lemel, *incomplete-action very proper be if incomplete-action around-in-back go-they (if they go around in back of me, that will be proper)*.

qol-ki-ho'xkumek-mo'tse-ki-nes, *something incomplete-action do-I, if incomplete-action arrive [you], (I will work for you when you come)*.

-te'me, -ta'mo-. This element introduces the idea of trying.

ta'mo-he'sek-qem-ni'mi-wo-komo'iyom, *I-tried to tell-[you], but not it heard-you (I tried to tell you but you did not hear me)*.

kits-ta'mo-me'nkwetso-k, *completed-action trying go-all-about I (I tried to go everywhere)*.

te'me-rnr'ip, *he tried to hook it*.

wo'noi-ye-qem-kits-te'me-la'yik, *on-the-sky yonder also completed-action trying travel-I (I tried to travel up on the sky)*.

kits-te'me-mä'nkwetsol *I-have unsuccessfully everywhere-been*.

-ta'wi-, -ta'wo-, enough, completely, already.

o'lem-ta'wo, *he-said, it is enough.*

ta'wo-kits-tspite, *enough! completed-action finish!*

ta'wi-kits-so'n, *already completed-action it-is (it's already done).*

ta'wi-ki'-co-ma-We'itspus-ni-ye'gok, *enough future accordingly not Weitchpec verily go-I (I will never go to Weitchpec again).*

ta'o-kits-meL-ogo'moiyok, *already completed-action for hear-I (I have heard it already).*

-si-, contrary to fact.

tu-wii'tu-si-so-no'xsemil, *indeed that-way would-have accordingly taken-off-they (that's the way they would have taken it off).* Compare with this tu-wi'stu-no'xsemel, *that's the way they took it off.*

toqʷ-si-na'xtsek, e'pel-oqʷ-ne-tsik, . . . *would pay, if had my money, (literally, my woodpecker-scalps, used for currency).*

si-tme'goli, *contrary-to-fact was-a-number-of-times-shot (he came near being shot, more than once).*

A myth recounts that a hero was arranging matters so that people could make arrow points merely by firing at a cliff, . . . si-meL-tmi'goli meL-ho'qtsqeʷ, *would with have-shot with [an] arrow-flaker.*

mo-wii't-si-olegoxku-wä'-ki-co'ktop, *conditional-statement that-substance would have-been-used this the red-obsidian.* Nowadays red obsidian is taboo.

wii'tu-si-son, *that-would have been.*

tu-wii'tu-si-sego'noxsitsi, *indeed that-way were going-to-chip-it.*

-tsu, -tso-. This element introduces politely imperative use of the verb, to which verb a suffixed -m is invariably attached. The simple imperative is the bare stem with a suffixed -s.

tsu-ku-re'itsom, *let-us go paddle.*

tsu-heL-ku-kune'kuk mi-yots, *let-us please go pull-up my boat.*

tsu-ku-e'kso'm, *let-us go shut [it].*

tso-lo'xtsom, *please catch [him]!*

tso-nu'mi-tsyu-so'o'me'kine'm, *better absolutely all-around observe, (better look well all around!).*

The element *tsu*, used by itself, may have the meaning of *all right* or *go ahead.*

tsul, come now! This is an interjection rather than an affix, but its obvious relation to the form just given makes it necessary to mention it here. It is used in introducing phrases of farewell, for, like some Oriental peoples, the Yurok dismiss a caller. It is sometimes translated by the English exclamation Well! (not, however, as an exclamation of surprise, for which other words are used) or by Yes!

tsul, him'r'qsets, *well, hurry!*

tsul, niyi-metso'res-ta-ki-koLok-ki-nekä'p, *well, better be-departing, and future take-I my medicine.*

tsul, ta'wi con haiktsek, *well, enough it-is, think I (well, I think it's O. K!).*

-tspi-, alone, only.

wi'ti-tspi-we-co, that only it is (that's my only reason).

nek-so-ne'sek-ta"wi-kets-tspit'o I conditional think enough completed-action alone
(I think that will be all).

tspi-wi-son, only that-kind is (that's the only kind there is).

uwr'Lqr-tspi-komo-o'le", his-bones only all-the-time were-left.

pis-tu-wi'tu-tspin-co'n, well, now that all is (well, that is all).

tspi'-koleli-ki-rgr'k, only one the sweat-house (there is only one sweat-house).

There is an adjective tspi'kor, alone, which obviously connects with the affix here discussed. It was used in referring, for example, to an old bachelor, keeping house by himself.

-tspi-, tspä-, -tspa'ni-, a long time.

tspi-we'golilksek, she always gathered hazel.

kits-tspa'ni-skuiyä'xpelek ho'wi, completed-action for-a-long-time good-to-them-I
(I have been good to them for a long time).

kits-tspa'ni-opene'Lqo, long ago they fell off (speaking of the leaves of a certain tree).

kits-tspäni-ne'sqwetsok, completed-action long-ago come-I.

kits-tspä-pene'Lqo, completed-action long-ago fell-they (they sell off last fall).

nu'mi-tspa-eqwe'pelik, very-much long-ago feared-I.

to-kis-tspa'anik, thinks it a long time to wait.

-nä'äm-, a long way.

ta-kwel-kits-nä'äm-he'gok, . . . indeed completed-action a-long-way have-gone-about-I.

ta'kwi-kits-nä'äm-no'xpena, . . . completed action far you-have-followed-me.

-ni'ki-. This affix might well have arisen as a combination of the elements *ni* and *ki*, already discussed. It seems to have the force of *all the time, continuously, or surely*.

tu-hel-tu-qem-ki-ni'ki-sku'i-so'nini-hego'm, declarative come-now! declarative also
uture right-along good accordingly you-will-walk.

ki-ni'ki-tsuy co'uawo me'gokx^u, all kinds of dogs.

ni'ki-wi-la'i, right-on-by he walked.

ki-ni'ki-wo'o, future all-the-time [here] it-will stand.

wii't-ki-ni'ki-ne'skwetsok, there future without-stopping I-will-arrive.

ni'ki-ko'si-o"was, absolutely all-over mud [he is], he is all covered with mud.

-nu-, come and . . . go and . . .

we'sek-ki'ti-nu-rprgyrguwr'mrq^u, he thinks about to come to-let-me-know.

nu-neps-kyek^w-kits-moho'xk^u, go eat those-yonder already gathered.

tso-nu-weno'"m mo-ki-tä'anoir, please by-coming come iffuture bright (come on and
come, if it's good weather).

nu-LOS, go fetch [it]!

nu-sr"simes-pa'a, go turn-down the water (referring to an irrigating ditch with a
headgate).

kit-nu-lo-qo'witse^w, impending-action going to-get stuck!

kiti'-nu-qr'LqrL, about going to-fish (they're going fishing).

tso-wii't-nu-nin-ku-kets-me'gwimor, better that-one go-and look that completed-
action aged (go and look at that old man).

-nu'mi-, very, exactly.

nu'mi-qä-pyuts-son-ki-qe'nes, exactly ? proper is that you-arrive (you did just the right thing in coming).

An interpreter was looking for a pin that had been dropped. A woman said, *nu'mi-yo-ol*, right there it-lies!

inu'mi-kise'nu, midsummer.

kits-nu'mi-tse'li, he-became very thin.

A person inquired, how is the sick man? The answer was, *kits-nu'mi-mo'oqʷ-wene'skwi*, completed-action indeed not improved.

kwel-eqw-tu-nu'mi-son, indeed verily so exactly it-was (that's the absolute truth).

ki-nu'mi-ni'nawok, future emphatically look-about I (I will look sharp).

ku-nu'mi-me'gwinor-tse'se, that very oldest dog (that oldest dog of all).

wop-qem-nu'mi-la'iyik, out-in-the-water also exactly he-was-traveling (he was coming right down the middle of the river).

qwel-eqw-qem-nu'mi-ne'gwok, yes! indeed also myself see-[it]-I (I see it myself).

nu'mi-tspä'aneq, very far-it-is.

-ki-, incomplete-action, future-time.

This affix is too commonly used to require much illustration. That the particle is not a future merely, or essentially, the following example will show.

kito'omik-so-ki-nepek, all-kinds-of-things conditional incomplete-action eat-I.

-ki'ki-. This seems to me to be merely a duplicated form of the preceding. The effect of the duplication is to add the idea that the action will surely take place, or will be continuous. It may be called an emphatic future.

ki'ki-qol-we'ego'xkwik, always anything he-will customarily-succeed-at.

kwel-eqw-ki'ki-newe'skwel'ar, indeed verily always my-body [it will be].

tawi-ki'ki-so-ma-We'itspus-ni-ye'gok, enough emphatic-future accordingly not We'itspus verily go-I (I'll never to We'itspus any more).

We'itspus-ki'ki-cot, to-We'itspus clear-through I-am-going.

i'i, neqa'-kiki-numi-ni'nawok, yes! I always right-sharp will-look-about.

kiki-wo'lemek-ol, surely are-coming-into-existence Indians.

-kiti"-, impending action.

kiti'-neskwetso'm, he is coming soon.

Other examples are very numerous in the examples already given.

-kits-, completed action.

An informant, after receiving some pay, remarked to the interpreter, *pis-wii'tu-kits-woxkweknō'xkum*, well, it completed-action to-me-he-has-given.

-qem-, also, again.

A person remarks that he is about to depart. A bystander says *neq-qem*, I also.

mo-ki-kwel-ko'wits-tso-qem-con'wo'm, conditional future indeed better-not please again do-it.

-ko'lo, it seems that, apparently, resembling, as though.

An informant trying to describe a color, pointed to her apron and said, *ko'lo-we'-nu'mi-son*, *apparently this exactly it-is* (*it looks just like this*).

ko'lo-woi't, *apparently he [it is]*, (*I think it's he*).

ki-ko'lo-tmo'loi, *future apparently be-shot* (*he might shoot us!*).

ko'lo-ni'mi-sku'i, *apparently not good* (*I do not think it looks well*).

ko'lo-nimo'oq"-we'lin, *it looks like is-gone his-eye*.

-kom-, permanent result, right along.

wi'stu-kom-son, *that-way all-the-while he-is*.

An informant said in speaking of a man who went on a crutch (having lost a leg), *wi'stu-ni-kom-so-he'go'L*, *that-way exactly forever as-a-result he walks*.

wi'stu-ni-ko'me-le'lke'N, *there exactly permanently they-abandoned [it]*.

wii't-tspi'wi-komo'o, *that only is-left (that is all that's left)*.

-kos-, desiderative. This element is apparently related to a stem *o'stoi*, which is used as a verb, meaning *I wish*. The form *kos* appears to be used before other verb stems in a way exactly corresponding to the affixes just listed.

kos-one'gwo'm, *I would like to see [it]*.

kos-ole'tskin, *I would like him to sleep*.

kos-oleso'n, *would that it were that way!*

A POSSIBLE INFIX

An element of very frequent occurrence is *-go-*, *-eg-*, *-ge-*, which, to all appearances, is interpolated into stems, both verbal and nominal. Its significance is clear. With verbs it means *often* or *habitually*, adding the idea of frequent or customary occurrence. Nouns with this addition take on the significance of distributives. Sometimes it has almost the effect of making nouns into plurals. I am not familiar enough with the behavior of infixes in other languages to be very sure of my ground. Possibly it is an affix, not a genuine infix; or an amplification of the nature of a reduplication or vowel budding. I have drawn up a list of examples where this apparent infix occurs, supplying wherever I can the other forms of the verb and noun for comparison.

ne'pu^l-se'gemu, *he salmon he-always-pounded up* (*sä'mes*, pound-up).

tu-tso-ne'gep-qoL, *that-is-how . . . always-ate anything* (*that is the only way he could eat anything [ne'pes, eat]*).

niqoL-o-nekrgr'krk, *always indefinite-time used-to-fish-I*.

hego'ktsek, *I gambled continually* (*ho'ktsek*, *I gambled*).

wis-o-wrgr'sprk, *he indefinite-time always-got-into-a-game* (*wrspr'kik*, *I tried to get a game*).

onä"-wrLkr's-ne'gep, *he-saw 'bones who-eats' [a wolf]*.

qe-megekwelä"', *you are always crying* (*qeme'qweleweyik*, *you are crying*).

wii'ta-ki-ko-gego'xka-ki-ni'igem, *that-is where future always-make their arrow-points* (*ho'xkum, make*).

si-tme'goli, *-contrary-to-fact was-often-shot* (*he came near being shot more than once [tmots, shoot!]*).

si-mel-tmi'gole mel ho'qstqe'^w, *contrary-to-fact with they-always-shot with an-arrow-flaker* (*they would have shot with an arrow flaker [to make arrow points]*).

wii'tu-qwel-eq^w-neq-cego'nawolek, *this-way indeed verily I always-am* (*son, be*).

In addition, I find a considerable list of place names containing this element. These have been published in my *Yurok Geography*.³ The following are examples. An indefinitely large number could readily be supplied.

O-slego'its, *where [a trail] goes-down* (*slo'itsos, go down*), the name of a place on a river bluff.

O-kne'get, *where they get arrow points* (*kne'tken, arrow point*).

O-stse'gep, *where they land* (*stsep, to disembark*).

O-trega', *where it drips* (*trahko, to drip*).

Yots-lega'i, *boats go-over* (*la'yik, to travel*).

Rnrgri'ⁱ, *berrying-place* (*nr'pr, berry*).

O-sigi's, *fern-root-gathering-place* (*si'son, fern root*).

O-tsuguk, *where an Indian Devil always sits* (*tsyu, to sit*).

The use of this element in connection with various elements is illustrated by the following:

te'tqol, *a gulch, tege'tqol, gulches*.

kr'xtspr, *adolescent girl, krgr'xtsprL, all adolescent girls*.

käämes *corpse, o'o-kege'samui-ole'q^w-ol, one-of those-who-die-from-time-to-time going-about they* (*one of those people who die from time to time*).

a'spe^w, *to drink, ma-agá', where no one drinks*.

nin, *to see, o-negi'ino, to look around*.

NOUN PREFIX

On page 198 of my *Yurok Geography*, already mentioned, a list is given of names for places beginning with o-, which evidently has the meaning of *where . . .* The following additional examples may serve to illustrate the usage: o-Lke'lol, *on the ground*, o-qr'tsrl, *on the hill*, o-qeto'xsil, *on the flat*, o-pä'äl, *on the water*, ki-ol-o-pekw^w, *those people at Pekwutul*, o-pi'gis, *where they catch surf-fish*.

Very similar meanings are carried by certain locative suffixes, as will be explained below.

³ Present series, xvi, 1920.

NOUN SUFFIXES

The commonest noun-suffix is -s, which has the sense of a locative. I am unable to distinguish the difference in meaning between this suffix and the noun prefix just discussed. Another very common noun-suffix is -k. The difference in meaning between -s and -k is not clear. My feeling is that -s means *in* or *at* a place, while -k expresses motion toward a place. My feeling is that pu'leku-s ni'na would mean *downstream he looked about* (i.e., he stood at a point downstream and looked around), while pu'leku-k nin would mean *he looked in a downstream direction*. The following examples partly bear out this interpretation.

Rekwo'i-s-s-OL, *at-Requa he-lives*.

yonts-is-o-lemä, *boat in indefinite-time they-went*.

hepur-is-ol, *down-river at he-lives (he lives below here)*.

wo-qo-Oknu'L-s-o'lol, *ye who live at Oknu'L*.

kyek'u-s-norä'iyorasö'n, *yonder peeping*.

wo"ot-kä-Sä'äl-es-OL, *that-one . . . Sä'äl at who-lives*.

he'gwon-is-qem-tis-onegwo'm, *hill upon also . . . he-saw-[it]*.

Someone inquired, *where is Frank?* The answer was, kyu-s iye'gon, *over-there he-is*.

pis-wi'stu-wono'iyek-s . . . , *then there sky-in-he-arrived*. If my theory is correct, it means that *in the sky he arrived not to the sky country he came*.

metsi'-äpe'ma, *fire on put-it*.

yok-e'le-nes, *here-motion-toward distant arrive (I got here)*.

noL-em-si-Lke'li-k-letko'lí'M, *then-by-going general-statement ground into enter-they*.

pis-tu-pe'tsku-k-äm-mä'wametsk, *so next up-river toward by-going he-sets-out*.

wogi-k-o-ne'ku, *middle into indefinite-time they-put*.

we'sek, hel, wono'iyek-qem-ki-co'tolek, *he-thought, 'Come! sky onto also future go-II'*

The presence of some sort of an affix is suspected in the case of the following expressions containing -i-.

lke'l-i o'-lkek, *on-the-ground I-am-lying*.

we'q-ne'kes-sa'wa-i, *here put-it, on-this-side*.

. . . he's-i-mr'xqwi, . . . *further underneath*.

ADVERBS AND SEPARABLE PARTICLES

The following elements differ from the elements just listed in the fact that, while they readily find place in a complex, they may also stand alone. The language makes no real distinction between adverbs and adjectives. The present list includes what may seem to be a rather heterogeneous assortment of elements.

NEGATIVES

Yurok is supplied with a variety of negatives. It seems best therefore to discuss them separately from the other elements in the present list. Briefly they are as follows:

mä, mäs
ni'mä
mi, mis
ni'mi
mos
mo'oq ^w , nothing, none
nimo'oq ^w , absolutely none
pä, päs, no (this involves the idea of action of the will)
pe'kus
kowi'tso, do not . . . !

In the forms ni'mä, ni'mi, nimo'oq^w, it is possible to recognize the element ni- which has been discussed above, with the meaning *very much* or something similar. Mo'oq^w may be a combination of mo with the element -eq^w already discussed, meaning *verily*. Such a form as nimo'oq^w would, if that is true, have an intensifying element at each end. This form is certainly used as the most emphatic negative. The form kowi'tso certainly includes the "polite imperative" tso- already illustrated, the negative element apparently being ko'wi. Concerning the use of these negatives I have little to say, except that kowi'tso is always with the imperative, and pa is the regular response which embodies a refusal. The -s which appears in the alternative form mäs, mis, is evidently comparable to the -s appearing in wistu, already commented upon.

. . . motse-ki-ma-ki-pa'ana, . . . if incomplete-action not that water (if he does not get water).

- mas-neq-ki-qem-nu'kwanes, not I will again come.
- nimä'-legal'i'-ol, not customarily-travels-there anyone.
- kits-mi-weye'tsak wexpega'rkes, completed-action not stopped that-sickness.
- neyi'-mi-pyekuts-ni-co'ne'm, . . . not proper indeed he-is (he's sort of mean).
- tu-wii'tu-meL-mi-wo'olego'xku, indeed that for not they-make-it (that is why they do not make it).
- mis-weyo'keimil-k'-ku-kä'polir, not respecting that yonder herb.
- . . . motse-ki-nimi-uqrgr'xtspr, . . . if future not menstruate-they.
- kwe'l-eq^w-nim'-ko'"mtsumek, indeed truly not know-it-I.
- mos-wi'-ki-con, not this will be (this won't do!)
- mos-neq-ki-we'ixkok, not I will quit.
- mos-qem-ki-wa'ⁱ-skuiyenek, motse-ki-mo'oq^w-we-nepu'iyana, not also will this be-good, if future none this salmon.
- ta-tu-ki-mo'oq^w-wule'gai-ol, . . . so future not exist people.
- kits-mo'oq^w-tsute'n, it is not going to rain.

nimo'oqʷ-ko-nepek, *nothing . . . I-eat.*
 äp-nin-nimo'oqʷ, *then they-saw none.*
 neqa'-kwel-päs, *we indeed not.*
 pää's-qwel-eqʷ-nimi-qq'mtsū'm, *no! indeed, that not should-know-you (I am unwilling that you should not know).*
 tsik-peksu-skewok-sipa', *money not likes it-me.*
 peksu-tsqe'iōL, *not-sleep-he-will.*
 kowi'tso-pkwe'tsom, *do-not come out.*
 kowi'tso-meL-no'xpeup, *do-not . . . go-in*
 kowi'tso-he'si, *do-not think!*
 kowi'tso-kwe'Lpeʷ, *do-not fear.*
 kowi'tso-a'spem-paʷ'a, *do-not drink water.*

ELEMENTS EXPRESSING TOTALITY

A certain amount of apparent inconsistency and overlapping is encountered in the use of these elements. It therefore seems best to discuss them as a group.

-*koi-*, -*ko'si-*, all around, everywhere, always.

kits-koi-so'nawok, *completed-action everywhere saw-I.*
 ko'si-pega'rkes-o'leqʷ, *everywhere villages they-live-in.*
 nol-ikiko'si-sapigwe'ganiL, *then in-all-places he danced.*
 niki-kosi-hä'megetoL, *surely everywhere had-that-they.*
 ki'kol-We'itspus-ni-yegok, *all-the-time to-Weitchpec indeed go-I.*
 ni'kol-ne-mege'lkoiyik, *always . . . I-am-humored.*
 -kitoo'mik-kito'meʷ, *everywhere, all kinds of.*
 kwel-eqʷ-ki-nu'mi-mr'qwini-wi-kito'mik, *indeed surely future very . . . all-over [will be].*

-*tsyu*, all.

he'si-wo'xpi-tsyu-reqe'nawor, *farther toward-the-middle-of-the-stream all sat.*
 te'me-tsyu-ne'p, *he-tried everything to-eat.*
 heL-tu-ki-tsyu-ne'gwom, *come! indeed future all you-will-see.*
 tskam-tsu, *all kinds.*
 qem-ni'ki-tsyu-pu'like-ru'ri'M, *also emphatic all-these downstream went.*
 ni'ki-tsyu-wä'sräts-yontsi-le'komatil, *one-and all their-arrows boat-in put-they.*
 mi'-ki-kitsyu'-skewo'ksuk, *so future all will-like-him.*
 mo-mi-ni'tsyu-meL-qege'samui, *because . . . all for-that will-one-by-one-die.*
 kwel-wi'tu-ni'tsyu-ho'xkumiL, *indeed that-thing all do-they.*
 ni'ki-tsyu ole'sil-tsu, *one-and all thought-they 'Very-good.'*
 nu'mi-tsyu-kawé'iki, *everything is finished.*
 nu'mi-tsyu-hä'm-wit-ki-so'nini-ho'le'Mo, *one-and all, he said, that-way future accordingly should-live.*
 tu-i'numi-tsyu-hä'kʷsek, *so absolutely everything he-found.*
 ki-nu'mi-tsyu-so-qe-negepek, *that absolutely everything so you have-from-time-to-time-been-eating!*

-*tse'gi-*. I feel this element to be a more emphatic form of the *tsyu*, just illustrated. I should not be at all surprised if it contains

the "infixed" -g- which I have discussed. It adds the notion of a variety of objects.

ki-tse'gi-co'nanani-nego'rew^w, those all sorts-of-things pretty-dresses.

An informant describing a grab box said, ki-tse'gicego'-nawoni-tu-qem-ola'^w, those emphatic-all emphatic-sorts-of-things this also he-had-assembled.

ki-tse'igi'n-kits-co'oto'L, . . . wherever past went-they.

VARIOUS PARTICLES

hi-, when prefixed to certain locative elements, seems to mean a little way, visible, or definite.

i, e, yes.

a'wol, tomorrow.

a'iwo, ai'iwo'oq^w, alas! This latter may contain the element -eq^w already discussed.

aiye'q^w, a'iyekekwe, ah!, well! (an exclamation of surprise or longing).

re'gwonek, regwona'u, riiqan, weri'iqen, at the edge.

ote'kti, close by, beside.

we'ki, here. This probably contains the demonstrative wa'¹.

wo, wo'hpi, hi'wop, out in the water.

wo'xpek, out in the ocean.

won, hi'gwon, above (in the sense of elevation); wo'noi or wo'noiyek refers particularly to the sky-country. He'woni, at the beginning, seems to be based on the same element.

wo'go, in the middle.

wogik, inside.

wu, hiwu, halfway.

yä, an exclamation of surprise, used by women.

yo, yok, hiyok, there (visible).

hi, an expression of surprise, used by men.

hir, hirq, hirqus, around in baek; used also in the sense of north, referring to the whole region, not to a point of the compass.

hes, interrogative.

he'si, farther, more (he'si-ko, farther on, he'si-pur, farther down-river, he'si-he'Lqäü, farther baek).

hel, eome! come now!

he'L, he'Lqu, he'Lqäü, back from the water. He'lkik is said to mean on the opposite side of a valley; he'Lkekus is said to mean backward facing.

pets, pe'tsik, petskus, petskuk, hipets, upstream.

pr'wr, in rear of something; used also in the sense of *south*.

poi, at the head of.

pul, pur, puluk, hipur, downstream; used also in the sense of *west*, and, because the ocean is imagined to flow northward, also in the sense of *north*.

mer, mrx, mr'qwi, under.

meL, for, with from. This is often used where a similar expression would not be necessary in English, and, conversely, often occupies the place of a whole phrase.

tso-wii't-meL-requ'rawo'm, *must that-one . . . sing!*

pis-wi'stu-o'les, tsul-ki-ye'gok-meL-wi', *then he thinks, "well, future go for that!"*

meL-rgr'ek, *from the sweat-house.*

meL-ki'mi-lo'gen, *from my weir.*

. . . meL-ki-ni-qäp, . . . *with that my herb.*

tu wii'ti-meL-weg"wo'lek, *indeed that . . . its-name (indeed that with it-is-named).*

tu-wii't-meL-wa'skuwo'-ku-pi"i, *indeed that- [is] why he-likes those mussels.*

kits-meL-so'nomeL, *they smelled it.*

te'gwolau, oceanward.

to'lil, crosswise.

to, hito, on this side of.

toi, tyu, toward the speaker.

sots, on top of.

tsei, on the other side.

tso'le", down hill.

tsme'igen, yesterday.

na, nä'ägin, at one side.

nos, behind, following after.

noL, then.

kes, down below (referring to elevation).

ku", after a while.

qo, hiqo', across a stream.

kus, interrogative (where, what, who) and relative (when).

kyu, kyek", yonder at a distance. The form kye' kwin means *as long as.*

kye'kwin-ki-soho'golimoni-ki-oL, *as long as live those people (as long as people live).*

kye'kwin-ki-no"omun, *as long as it lasts.*

INDEX

- Achomawi, 147.
Algonkin, 130, 132, 369.
Alsea, 4, 8.
American Archaeologist, 113.
American Museum of Natural History, Bulletin, 35.
Arapaho, 145, 150.
Athabascan, Athapascan, 95, 130, 132, 146.
Barrett, S. A., 77, 78, 85, 145, 159, 222, 225, 236, 238.
Barrows, D. P., 233, 237.
Basketry, 132, 133, 134, 135, 138, 139, 215, 340.
Basketry, Plants Used in, by the California Indians, 215-242.
Big Valley, 85.
Blackfoot, 145, 149.
Boas, Franz, xv, 3.
Bureau of American Ethnology, 128.
Cahuilla, 147, 148, 150, 197, 216, 218, 219, 232, 298.
Cahita, 195.
Caste, 137.
Chemehuevi, 350.
Chestnut, V. K., 223, 238, 240.
Chimariko, 131, 217.
Chinook, 3.
Chumash, 138, 218, 225, 232.
Clans, 135, 136, 299.
Clear lake, 77, 79, 85, 86, 224, 228.
Clear Lake, Pomo Lands on, 77-92.
Cold creek, 64.
Coleman, Will F., 297, 308, 322, 324, 334, 350.
Colorado (river), 135, 136, 139.
Colusa, 159.
Concepcion, Point, 216.
Contributions to North American Ethnology, 35, 95.
Cope, Leona, 357.
Copper Mine creek, 103, 106.
Cosmogony, 135, 136.
Couvade, 147.
Coville, F. W., 236, 237, 238, 239, 340.
Cremation, 37, 133, 149.
Cross-cousin, 134.
Crow, 145.
Cultural Connection of California and Plateau Shoshonean Tribes, 145-156.
Cupeño, 133.
Davis, Edward H., 297.
Diegueño, 146, 219, 225, 301.
Dixon, R. B., 35, 148, 149, 150, 154, 159.
Dolores, Juan, 19.
Dorsey, J. O., 146.
DuBois, C. G., 316, 348, 357, 358.
Eel river, 98, 100, 101, 108.
Emerson, Alfred, ix.
Ethnological and Archaeological Survey of California, xiii.
Ethnology, Contributions to North American, 35, 95.
Eudeve, 203.
Exogamy, 131, 133, 151, 310.
Faye, Paul-Louis, xv, 35.
Fletcher, A. C., 149.
Freeland, L. S., xv, 57.
Gens, 300, 303, 307, 308, 309, 310.
Gifford, Edward Winslow, xv, 64, 77, 142, 151, 154, 215, 297, 299, 302, 304, 305, 309, 328.
Gila, 135.
Goddard, Pliny Earle, xv, 95, 232.
Gros Ventre, 145.
Habitat of the Wailaki, 95-109.
Hall, H. M., 215.
Harrington, J. P., 297.
Healdsburg, 78.
Hearne, S., 147.
Heinzelman, 300.
Hidatsa, 145, 150.
History of Native Culture in California, 125-142.
Hokan, 130, 133.
Holmes, W. H., 113, 114.
Hooper, L., 147, 148, 150.
Hopkins, S. W., 148, 154.
Humboldt bay, 141.
Hupa, 147, 217, 219, 222, 225.

Index

- Idaho, 145.
Impersonations, 138.
Inheritance, 83.
Initiation, 135, 138, 316, 317, 321.
James, G. W., 236, 237.
Jepson, W. L., 224.
Jones, Philip Mills, ix, xv, 113, 114.
Journal of American Folk-Lore, 16.
Karok, 131, 147, 151, 153.
Kawaiisu, 221, 222.
Kelsey creek, 78.
Kelseyville, 64, 78.
Klamath lake, river, Indians, 132,
166, 218, 219, 220, 222, 223, 224,
226, 228, 232.
Koso, 221.
Kroeber, A. L., xv, 125, 150, 151, 152,
153, 154, 155, 156, 159, 167, 195,
215, 217, 236, 237, 297, 298, 301,
305, 327, 328, 369.
La Flesche, F., 149.
Laguna, 300.
Lake Miwok, 79.
Lake Wappo, 78.
Lemhi, 145, 148, 149, 155.
Levirate, 8, 150, 151.
Lileek, 78, 79.
Long Valley Wintun, 78.
Lower lake, 87.
Lowie, Robert H., xv, 145, 148, 150,
152, 153, 154, 155.
Luiseño, 147, 197, 225, 232.
Lutuami, 225.
McKern, W. C., xv, 159.
Magic, 53, 72, 137, 315.
Maidu, 57, 58, 138, 147, 148, 150, 152,
154, 218, 227, 232.
Maidu, Notes on the Southern, 35–53.
Mandan, 145.
Marsden, W. L., xv, 175.
Mason, John Alden, xv, 153, 156, 195.
Matrilocal residence, 150, 310.
Medicine rocks, 8.
Mendocino, 223.
Meredith, H. C. 113, 114, 115.
Merriam, C. H., 226, 236, 237, 238.
Merrill, Ruth Earl, xvi, 215.
Miwok, 57, 78, 79, 80, 113, 154, 217,
222, 223, 227, 232.
Modoc, 166, 223, 226, 232.
Moiety, 134, 135, 151, 299.
Mohave, 147, 153, 298, 327, 328, 330.
Mono, 221, 222, 223.
Monogamy, 311.
Moorehead, Warren K., 113, 114.
Morgan, C. H., 152.
Mound Excavations near Stockton,
113–122.
Mythology, 134, 135, 137, 139, 154,
155, 156, 180, 301, 328.
Nahuatl, 195, 197, 203.
Natches, Gilbert, 245.
Native Culture in California, the
History of, 125–142.
Nelson, N. C., 141, 142.
Nestucka, 14, 15.
Nez Percé, 155.
Nootka, 146.
North, Arthur W., 305.
Northern Paiute, *see* Paviotso.
Northern Paiute Language of Ore-
gon, 175–191.
Northern Paiute Verbs, 245–259.
Notes on Eight Papago Songs, 361–
366.
Notes on the Southern Maidu, 35–53.
Notes on the Tillamook, 3–16.
Omaha, 145, 146, 149.
Opata, 203.
Oregon, 3, 156.
Paiute (Southern), 146, 147, 149, 152,
197.
Palmer, Edward, 237.
Papago, 195, 199, 203.
Papago Nominal Stems, 19–31.
Papago Songs, Notes on Eight, 361–
366.
Parallel cousin, 84.
Parsons, M. E., 238.
Patrilineal, 84, 133.
Patwin Houses, 159–171.
Paviotso, 146, 147, 150, 152, 154, 232.
See also Northern Paiute.
Penutian, 130, 132.
Pima, Piman, 19, 20, 203.
Plants Used in Basketry by the Cali-
fornia Indians, 215–242.
Polygamy, 311.
Polygyny, 131.
Pomo, 138, 151, 153, 217, 219, 220,
233.
• Pomo Doctors and Poisoners, 57–73.

Index

- Pomo Lands on Clear Lake, 77–92.
Potlatch, 137.
Potter valley, 68.
Pottery, 135, 136.
Powers, Stephen, 125, 159, 239, 308.
Preliminary Sketch of the Yaqui Language, 195–212.
Priestley, H. I., 215, 236.
Pueblo, 133, 135, 156.
Purdy, Carl, 236.
Reciprocal kinship terms, 153, 154.
Reisner, George A., ix.
Robinson creek, 59.
Rust, Horatio N., 326.
Sacramento, 134, 138, 159, 223.
Salinan, 153.
Salish, 146.
San Diego, 297.
San Francisco bay, 140, 141, 142, 216, 231, 369.
San Joaquin, 114, 138, 141.
Santa Barbara, 140, 141, 216.
Santa Catalina, 138.
Sapir, Edward, xvi, 146, 152, 154, 197, 263.
Satchell, W. A., 348.
Shaman, Shamanism, 10, 50, 131, 132, 133, 134, 135, 137, 138, 139, 154, 309, 311, 312, 313, 315, 317, 318, 321, 322, 325, 349.
Shasta, Shastan, 9, 131, 147, 154.
Shoshonean, 130, 133, 134, 138, 145, 146, 153, 154, 155, 156, 195, 197, 298, 314, 323, 328.
Shoshoni, 148, 150.
Sib, 133, 138, 150, 151.
Siletz, 9, 12.
Sonora, 135.
Sororate, 150, 151.
Southern Diegueño Customs, 297–358.
Sparkman, P. S., 232, 237.
Spier, Leslie, xvi, 297.
Stockton, 114.
Stricklen, E. G., xvi, 361.
Sucking, 52, 57, 63.
Tahltan, 146.
Takelma, 152.
Tarahumare, 203.
Teit, J., 146.
Tepecano, 19, 195, 203.
Tepehuane, 203.
Text Analyses of Three Yana Dialects, 263–294.
Thompson river, 146.
Tillamook, Notes on the, 3–16.
Tolowa, 222, 225.
Totem, Totemism, 133, 134, 135, 138, 308.
Transformer, 8, 18.
Uhle, Max, ix, 140.
U. S. National Museum, Report, 113.
Ute, 146, 147, 148, 149, 150, 152, 153, 154, 156, 203.
Uto-Aztekan, 195.
Wailaki, 9, 98, 108.
Wailaki, Habitat of the, 95–109.
Walker, Harriet A., 215.
Wappo, 78.
Washington, 156.
Washo, 131, 138, 154, 155, 220, 222.
Waterman, T. T., xvi, 175, 298, 307, 323, 324, 326, 369.
Wintun, 78, 79, 80, 160, 217, 220.
Wintun, Long Valley, 78.
Wishram, 152, 155.
Wissler, Clark, 149.
Wiyot, 132, 220.
Yahi, 114.
Yana Dialects, Text Analyses of Three, 263–294.
Yana, 131.
Yaqui, 195, 197.
Yaqui Language, Preliminary Sketch of the, 195–212.
Yokuts, 114, 138, 150, 151, 155, 222, 233.
Yreka, 9.
Yuki, 57, 58, 98, 152, 219, 233.
Yuma, Yuman, 130, 298, 300, 301.
Yurok, 132, 146, 147, 219, 223.
Yurok Affixes, 369–386.

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Index, pp. 427-443.	
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Index, pp. 359-369.	
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Index, pp. 437-439.	
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Index, pp. 381-385.	
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Index, pp. 473-479.	
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Index, pp. 467-473.	

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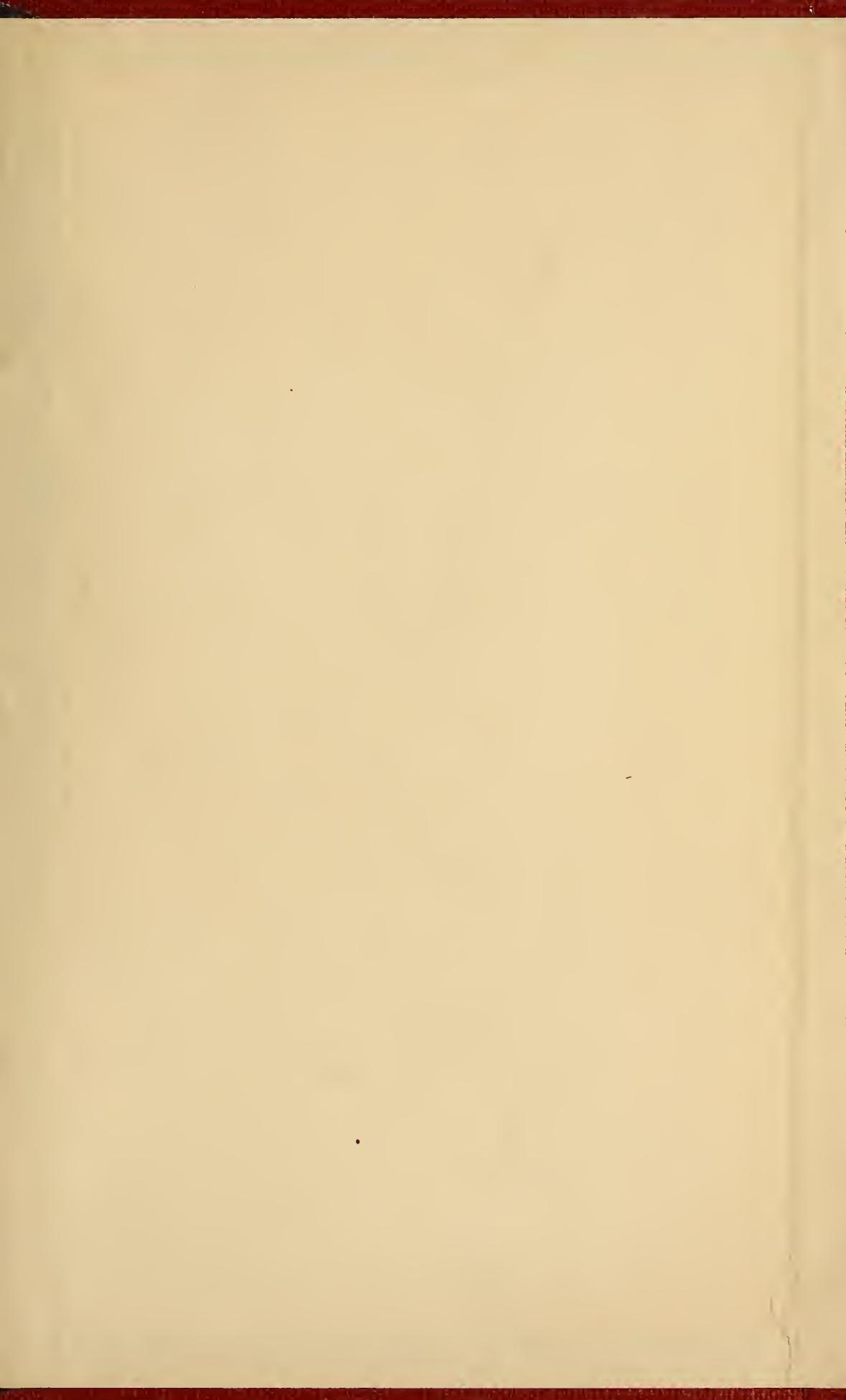
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